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BRIDGET AND THE WATER-WHEEL.

DORSEY

THE YOUNG INVENTOR

BY

EDWARD S. ELLIS, A. M.

AUTHOR OF "THE STANDARD HISTORY OF THE UNITED STATES,"
"COMMON ERRORS IN WRITING AND SPEAKING,"
"DEERFOOT SERIES," ETC., ETC.

NEW YORK

FORDS, HOWARD & HULBERT

1899

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THE MERSHON COMPANY PRESS,
RAHWAY, N. J.

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DORSEY, THE YOUNG INVENTOR.

CHAPTER I.

DORSEY.

"THAT boy will never amount to anything; I sometimes doubt whether he has good sense."

Jacob Dawson flung his hat on the settee at his side, dropped into the rocking-chair, and swayed impatiently back and forth, while the expression of disgust on his face was too plain to be mistaken.

His wife, who in her younger days was a New England school-ma'am, was sitting by the open window, on this pleasant summer afternoon, busy with thread and needle. No woman ever understood her husband better than she. Still plying the shining implement, she looked across the room and in her quiet voice asked:

"What is the trouble, Jacob?"

"I can stand almost anything in a boy except laziness," was the half-angry reply; "Dorsey will do anything rather than work."

"That is to say, he will work to avoid work," said the wife, with a smile that showed she had little share in the gloomy feelings of her husband.

"Yes, he'll do that very thing; he will toil like a dray horse for an hour to save himself from fifteen minutes' straight, honest work. It was your urging that led me to send him to school until the close of the term. His month's vacation began to-day, and I took him out on the brickyard after breakfast and gave him to understand that play was at an end and he must give all the help he could, and there's considerable that an active, willing lad can do to help the men."

"Did he show any unwillingness?"

"No; I'll give him credit for that. He said, 'All right, pop; what shall I tackle first?'"

"Well?"

"'Sift a barrow load of sand,' I said; and off he started whistling to himself."

The husband stopped speaking, while the wife, holding her needle motionless, and with a smile, waited a minute or two before speaking:

"You have started to tell a story; why do you not finish it?"

"He walked under the shed, passed around the haiks of bricks to the inclosure where, as you know, the sand is piled, to be sifted before it is fit for use by the off-bearers. He had been gone only a little while, when something led me to walk down to that part of the yard to see how he was getting on. When I saw what he was up to, I lost all patience."

"I am curious to know what it was."

"He had nailed some slats to one of the posts, so that the ends stuck out and rested on other slats that served for legs, the whole making a sort of platform. On the top of this was the sieve, with the wheelbarrow under. Then he had cut a notch near the end of another slat or paling, which he hooked into the side of the sieve. Do you understand?"

"It is not quite clear to me."

"Well, he filled the sieve full of sand, with all the bits of gravel and big pieces of dirt, and then standing several feet off, with the end of the paling in his hands, he sawed the sieve back and forth, so that the sifted part dropped into the barrow below. I stood behind him for several minutes, without his knowing it, and then asked: 'What in the name of common sense are you doing that for?' 'Why, pop,' he said, 'when I have to lean over the barrow, with the sieve right under my face, the dust comes up so fast that I can hardly breathe. Mr. Westervelt, our teacher, says we must always try to breathe pure air, and that's what I'm doing. Standing off here the work is easier, and I don't get a bit of the dust that used to choke me. Don't you think it's a big idea?'"

Mrs. Dawson dropped both hands into her lap and broke into laughter, while her husband looked, if possible, more disgusted than ever.

"What did you say in answer to his question?"

"Nothing; I gave a sniff and walked away."

"You ought to have waited long enough to compliment him as he deserved. I understand that he sifted the sand just as you wished, but in doing it, had sense enough to think of a way by which he could make it healthful work."

"Who ever heard of anything of the kind?"

"Nobody, so far as I know: you and the men who have had to sift sand for years followed the old-fashioned way, clogging your mouth, nostrils, and eyes with the dust, waiting until in the fullness of time a boy fourteen years old, named Dorsey Dawson, comes along and teaches you the simple method by which the work can be done without any bad effects."

"You always stand up for that boy," was the unreasonable remark of the father, an unfair recourse upon which he fell back when, as was often the case, the bright wit of his wife proved too much for him.

"I stand up for him when it is my duty to do so. Have you ever thought, Jacob, how for years the inventive brains of the country have been working to find means of

lessening manual labor? When Eli Whitney invented the cotton gin, at the close of the last century, he made one man do the work of a thousand men and brought wealth beyond measure to the South. I think it was William H. Seward who said that the mowing and reaping machine caused civilization to advance westward at the rate of thirty miles a year, and you know what has been done by the steamboat, the locomotive, the sewing machine, the telegraph, the improved printing press, and hundreds of other inventions all of which lessen the burdens of life."

The husband was silent a brief while and then softly laughed.

"You can never forget your school-teaching days, Lucy, but it seems to me you are straying from the subject. I don't see that your argument applies to a big, healthy boy who is always figuring out how he can save work for himself."

"If you will stop to think, you will see the application. Necessity is the mother of invention. You set Dorsey to do a certain piece of work; he obeys, but the inventive

faculty which his Creator has given him points out a better way of performing the task. It is that need of a better way which is the source of most of the inventions that are made."

Mentally the wife was on a higher plane than her husband, though, like the excellent woman that she was, she never allowed him to suspect it. Truth to tell, he was quite certain it was the other way.

She resumed her sewing, and waiting a few minutes without any response from him, she added a few words that were like apples of gold in pictures of silver.

"God has given us two bright, dutiful, loving children, Maggie and Dorsey. My experience as a teacher showed me that the most common mistake of parents is their failure to study the mental gifts of their children. When Dorsey was born, my highest ambition was that he should grow up to be a preacher of the Gospel, but I could not forget that there is One who knows all things better than we. Dorsey is not gifted in speech, and though he gave his heart to God a couple of years ago, the thought of

his becoming a minister never entered his mind until I spoke of it to him. I asked him to think and pray over it, and he did so, with the result that in his own words he said he knew he was not cut out for a preacher. I have known of more than one case where the proud father and mother of a boy have literally driven him into the ministry with the result of a woeful failure. It is the same with all professions. There are men practicing medicine and law who detest the work and can never reach success. Every child, as a rule, is born with a talent for some calling in life, and that parent falls short of his duty who does not encourage such talent until in good time it brings forth fruit fifty or a hundred fold."

The husband had ceased swaying his chair. He rose, picked up his hat from the settee, and walked out of the house without making any reply to the words of his wife. She quietly continued her sewing, and murmured to herself:

"Jacob does not understand the boy, but he will by and by. He finds a good deal of fault with Dorsey, but I am mis-

taken if he would permit anyone else to do it."

From what has been told, it will be understood that Jacob Dawson had charge of a brickyard. It was on the banks of the Delaware River, a few miles north of the city of Trenton. Between the yard and the river runs a canal, and on the bank between the canal and the river is the track of the Belvidere Division of the Pennsylvania Railway. Years before the discovery of a valuable deposit of clay a sawmill stood on the ground. The building had given way to the house in which the Dawsons lived, but most of the bank used to confine the water still remains, though the stream which supplied the pond plashes through an opening in the base of the bank and, falling ten or fifteen feet, finds its way through a culvert under the canal to the river beyond. Thus for many years this power has been allowed to go to waste.

In the days of which I am speaking, steam was rarely used on a brickyard. The two machines for grinding clay were worked by means of a long sweep, to the end of which was fastened a horse, that slowly plodded

around in a circle, from early in the morning until late in the afternoon. One man stood in the pit and shoveled the clay into the big box-like hopper, in which an upright iron shaft with blades was turned round and round by means of the horse at the end of the sweep. This action ground the clay for the moulders, who stood on the other side and with levers pressed the clay down into the moulds, that were carried away by the "off-bearers" and laid on the smooth, hard surface of the yard.

Each mould, as it was called, contained six bricks, and the three off-bearers had to move lively to keep up with their work. As each placed the six cubes of soft clay on the smooth earthen floor, he carefully raised the wooden framework, hurried back to the machine, and, just before sliding his mould into place, stopped at a big box standing on four legs, and dipped the moulds into the sand it contained, and shook it about so as to scatter the particles. If this were not done, the cubes of clay would stick in the moulds and be spoiled.

The off-bearers, the moulder, and the

feeder, five men in all, made up the "gang," whose task as a rule was to turn the clay in the pit into ten thousand bricks, which made a day's work. During the sultry weather in midsummer the gang often rose shortly after midnight, and by working hard in the cool hours of the morning had their task done before midday. Many a time I have seen the ten thousand bricks placed on the yard before the bell rang for breakfast.

While the regular gang were doing this, two other men with horse and cart were busy filling the second pit with clay, so as to have it ready for the next day's work, the task thus changing regularly about through the season.

After the bricks were laid with their broad sides upward they were too soft to be handled. A few hours of the hot sun, however, so hardened them that they were turned up on edge, where the rays could better continue the baking. When they had stood thus long enough to become quite hard, they were piled up on top of one another like a stone wall, thus to remain until dry through and through. When the clay is good the

bricks at such times will often ring with a metallic sound if struck together.

The next step was to wheel these bricks to the kiln, where they were placed in position, ready for burning. A kiln contained several hundred thousand bricks. Through the base, at regular distances, were the arches in which wood was kept burning for several days and nights, until the man in charge saw that the clay was well burned. This process changed the green gray bricks to a red color. Those nearest the top of the kiln, where the heat has been least, are pale, worth less than the others, and are known as "salmon bricks." The ends of the bricks exposed to the intense heat of the arches are are often very hard and coal-black in color, while midway between the arches and the tops are the cherry-hued ones that are the best of all.

In this old-fashioned method of brick-making there was always need of a boy's help. One of his duties was to keep the sand box supplied for the off-bearers. Another was to "lute" the ground. With an instrument resembling a rake, except that it had a straight iron edge, he scraped off the

hard level surface for the bricks, so as to make it still smoother. Men toiling on a hot summer day like brickmakers need a good deal of drinking water, and it is no small part of a lad's task to satisfy the thirst of the workmen.

When the bricks had dried enough to permit of their being arranged on top of one another on the yard, they were said to be "haiked," though the dictionary does not authorize the use of the word.

The hardest task of all is that of "turning up" the bricks. A few hours in the sun dry them enough for this. Then the boy or man spreads his legs apart like those of a pair of dividers, one foot being on one side of the long row composed throughout its length of six bricks, and the second foot on the other side, while he leans over and carefully turns up the bricks on edge, one at a time until he reaches the end of the row, when he does the same with the next row, and then with the next, and so on until the dozen or more rows are finished.

This work is so hard that the boy generally needs the help of the gang to finish it.

Ah, the length of those rows of bricks! How many times I have hitched along with aching back and tired fingers until sure I was nearly through, but when I looked longingly ahead, the end of the row seemed as far off as ever, while the other rows still awaiting attention were as numerous as at first.

CHAPTER II.

BUDDING GENIUS.

Mrs. Dawson was right when she said that her husband would have been quick to resent any fault found with his only son, even though the father himself scolded him so much, for it was true that the boy, fourteen years old, and Maggie, six years younger, had many fine traits. They were obedient, conscientious, affectionate, and unselfish. Dorsey was of a sunny nature, fond of sport, a good student at school, and liked by his fellows as well as his teacher.

But there was no denying that the boy was rarely or never given a task that he did not set himself to thinking out some easier way than the usual one of doing it. It was the duty of the boy when not quite ten years old to milk each morning and evening the two cows belonging to the family. In the winter time when there was no work

done on the brickyard, it was no small trial to leap out of his warm bed each wintry morning, and, with a pail on his arm, go shivering to the barn, look after the cows and milk them, but he never complained of his task.

Among the presents brought to Dorsey one Christmas by Santa Claus was that wonderful book "Robinson Crusoe." He became interested in it, and would have read every page without stopping for his meals, had his parents permitted. His father noticed one morning when he came back from the barn with his pail of foaming milk that he had the volume in the outer pocket of his great-coat. Wondering how he could find time to read it while milking, the parent said nothing, but slipped out after his son the next morning to solve the puzzle. The discovery he made was a surprise.

The boy was sitting on his three-legged stool at the side of the cow, so interested in the book that the barn might have taken fire without his knowing it; but the pail was in place, and there were four streams of milk falling steadily into it from the udder of the

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patient cow that was contentedly chewing her cud. Dorsey had deftly pushed a piece of rye straw into each teat, and thus the milking was attending to itself, though toward the end he removed the straws and did the "stripping" by hand.

The sight so amused the parent that he stole away and told his wife what he had seen. Neither said anything to the boy until he had read all his book, when the mother said she feared the new style of milking the cows might not be good for them.

"All right," replied Dorsey; "then I won't use it any more."

And yet, as is well known, the crude method described has been improved and is now used by many dairymen.

It was during the following spring that the father, while building the shed which was to cover his brick kiln, observed that one of the cows had strayed upon the railroad, where she was cropping the grass that grew between the track and the canal. He was alarmed, for it was nearly time for the down express, which would be almost certain to kill the cow unless she was driven away, for

nothing was more natural than for her, when she heard the engine almost upon her, to step upon the track and start on a gallop in front of the train. Hardly a day passed on which something of the kind did not take place somewhere along the railway.

"Dorsey! Dorsey!" called the father, and the reply was prompt from the lad, who had just cut a branch of chestnut which he was about to fashion into a whistle, but he threw it down and ran forward to learn what was wanted. The matter was quickly explained.

"You haven't a minute to lose! Run down to the bridge and come up the track as quick as you can. I fear you'll be too late," added the parent, glancing at his watch.

"Yes, sir!" and the boy was off like a deer, bounding over the fence into the highway.

As he did so, he heard the whistle of the engine at Moore's Station, not half a mile up the road. The train would thunder past within the next five minutes. The bridge by which the canal was crossed was an eighth of a mile away, and Mr. Dawson closed his lips with the thought:

"Nothing can save the cow; I hope she won't get under the pilot and throw the train off the track. What is Dorsey doing?"

Instead of turning down the highway, the lad ran across and down the back of the canal. There are not many things in this world that can be done so quickly as the undressing of a boy when he is in a hurry. Dorsey Dawson began the process while he was running. At the edge of the canal he flung off his coat, vest, and hat, and in the same instant kicked off his shoes and yanked his stockings free. His shirt seemed to shoot over his head. Then that garment and his trousers were twisted into a compact ball and he leaped into the canal. With his left hand he held the bundle of clothing over his head, while he swam with his feet and the free hand. The distance was short, and he came out directly beside the cow, who raised her head in affright. With the package of clothing he struck her across the forehead, shouting loudly at the same time, for he had seen the head of the engine sweeping around a curve in the road only a short way off.

The cow knew nothing of this danger, but

she had never been attacked in this strange fashion, and, whirling about, she trotted across the track and down the river bank with a vigor that caused her to lose her footing and to roll to the bottom. Dorsey sprang back into the canal, where he stayed until the train had passed, when he swam out as before, put on his clothing and shoes, and, crossing the bridge, brought the cow to her pasture field.

The father was so well pleased with the exploit that he gave him a bright, new silver dollar, which Dorsey kept for a whole week, when he lost it. At the same time the parent, without suspecting it, helped to develop the inventive faculty that showed itself thus early in his son.

Dorsey and his sister, as well as their neighbors, were very fortunate in one respect. The district school, which was a mile distant among the hills and woods, was in charge of an excellent teacher, Jared Westervelt. He was a young man, but he had that rare faculty which marks the true instructor and can only be described as genius, and which fills his pupils with an ardent love of study

and a deep affection for himself. Being popular with the boys and girls, he was certain to be popular with their parents, and it was agreed by all that never in the history of the neighborhood had it done so well as when it hired this young man who played ball, skated, ran races, and laughed out of school, but ruled the children justly within doors.

Studying the nature of each boy and girl under his care, it was not long before Mr. Westervelt noticed the marked bent of Dorsey Dawson's mind. The most advanced class in arithmetic one day had the problem which no doubt most of my readers have seen:

"The head of a fish weighs four pounds, the tail weighs as much as the head and half the body, and the body weighs as much as the head and tail together; what is the weight of the fish?"

The teacher found that only one boy in the class was able to solve the question. He was Dorsey Dawson, and he mastered it without any help. Then the instructor tried to make it clear to the other boys and girls. He

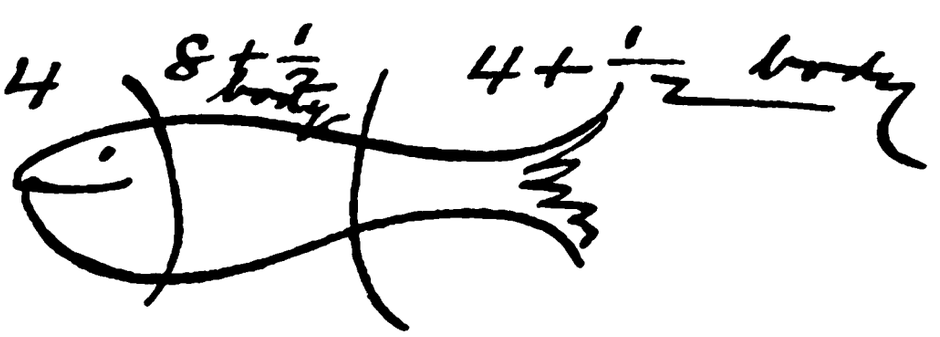
did his task with his usual patience and skill, but saw when he was through that it was still a puzzle to most of the pupils. Again and again he went through his work, but with only partial success. At last he said:

"Well, I have done all I can, and shall have to give it up."

"Mr. Westervelt, I think I can make the others see how that is," said Dorsey with a smile and blush of modesty.

"I shall be delighted if you will do so, for evidently it is beyond my power."

Dorsey Dawson was the only member of the class that could have acted thus without displeasing the other pupils, but he now walked to the blackboard and chalked out the following:



The biggest boy in the class was the dullest. He was Bob Johnson, who stared wonderingly at Dorsey's performance. The

latter, having made his diagram and lettered it, took the pointer from where it hung at the end of the blackboard, and, facing the class, still blushing and somewhat confused, spoke to the big boy:

"Now, Bob, that fish is made up of its head, body, and tail, isn't it?"

"I don't know of nothin' else that b'longs to a fish, except fins."

"The fins are a part of the body and tail. How much does the head weigh?"

"Four pounds; there aint nothin' hard 'bout *that*."

"How much does the tail weigh?"

"Let me see," said Bob, wrinkling his forehead with thought—"why, as much as—as—yes—as much as the head and half the body."

"Or four pounds, plus half the body. That is clear, isn't it?"

"Hold on a minute—lemme think; yes, that's clear—four pounds, plus half the body."

"Now let us see how much the body weighs. It is as much as the head and tail together. Well, that is eight pounds——"

"Hold on again," broke in Bob, beginning

to grasp, though not with perfect clearness, the truth; "let me think. Ah, yes,—that's plain. I see that the body weighs eight pounds, plus half of itself."

"How many halves are there in anything?"

"Why, two of course; I'm sure of *that*," grinned Bob.

Dorsey put the end of his pointer on the figure "½" over the body of the fish.

"That's one-half of the weight of the body, isn't it?"

"Yes."

"Then, where is the other half?"

"Why—why, it *must be the eight!* Yes, eight is one-half the weight of the body, and its whole weight is sixteen pounds; half of sixteen pounds is eight pounds, which added to the weight of the head (four pounds) makes the weight of the tail twelve pounds. I see it all now as clear as sunshine. By gracious! that's good for you, Dorsey!"

"Well done!" exclaimed the teacher, clapping his hands; "I am proud to have such a bright helper as you, Dorsey."

CHAPTER III.

PRESENCE OF MIND.

On a beautiful Sunday morning the mare belonging to Mr. Dawson was hitched to the carriage, and the family drove for a mile and a half to the old country church, made of stone and rough-cast, and standing at the top of a high hill where it was in plain sight for miles around. The road was rough and winding, with many hollows and long slopes, some of which were quite steep, making careful driving necessary, even with a good-tempered horse.

Since the carriage held the four members of the family in comfort, it was rare that all did not attend church. Generally the parents occupied the last seat while Dorsey and Maggie sat in front. The boy was a good horseman, and all felt as safe while he held the reins as if his father were driving. When a level piece of road was reached

Dorsey often let his sister drive, but upon nearing the descending hills he always took charge.

It was on a balmy morning in May, when the soft air was sweet with the perfume of apple blossoms and honeysuckles, and the bees were humming amid the bursting blossoms, that the happy family rode to the old church, where the horse was tied in one of the broad stalls under the sheds, and the party, after greeting and speaking a few words with their friends gathered about the door, passed within the roomy structure, and took their places in the pew, as they had been used to doing for years past. Although the pews were not rented, there was no trouble in finding their usual seats, for the congregation was never crowded, except perhaps during revival services in the winter time.

Plain, unlearned, and blunt-spoken, the Rev. Mr. Chater was a godly man who did much good among the people, and was held in respect by all. Dorsey and Maggie were among his attentive listeners, for though his arguments were not always clear, they had a

good deal of honest, homely truth, which the smallest child could understand. Then, too, he had a fine voice and led the singing better than any of his members or a volunteer choir could do.

On the particular Sunday that I have in mind the family tarried outside the door, as was the custom, while Dorsey was bringing up the carriage. Generally the dominie mingled with his people at such times, and his pleasant inquiries about the absent ones, and his fatherly counsel, did much to add to the loving regard between pastor and people.

In returning home from church the worst hill of all was that which ended within a hundred yards of Mr. Dawson's door. It was not only long, but the lower part was very steep. It had been the scene of more than one accident at night, when a stranger could not see where he was going. It will be noted that since the house of Mr. Dawson stood on the bank of the canal, the road turned at right angles up and down stream, so that if in coming from church the carriage passed the door, it had to make a sharp bend to the right or left to avoid the canal,

between which and the road there was not so much as a skeleton fence.

Just before reaching the top of this hill Mr. Dawson said:

"Hold up, Dorsey, and let me out; I feel like stretching my legs in this fine weather; I'll walk the rest of the way home."

The boy stopped the mare, and resting his hand on the shoulder of his son, Mr. Dawson stepped forward and sprang lightly to the ground. Dorsey spoke to the animal, which started forward on a walk, for it was never safe to go at a faster pace down the long, steep incline. He held the reins taut, and made some remark over his shoulder to his mother, who gently chided him.

"Give your attention, my son, to the mare; I never feel quite safe in going down this hill."

"Pshaw! what is there to be afraid of?"

"There have been accidents, you know."

"But at night, or with a bad horse; the mare couldn't be scared into running away——"

Just then the unexpected happened. The hold-back strap on the right of the horse

snapped in two because of the strain, and the shafts slipped forward, the vehicle, as may be said, running upon her. She jumped ahead, as if to escape it, and, holding the reins firmly, Dorsey spoke soothingly to her, but the next instant the whiffle-tree struck her harder than before, and with a snort of affright she bounded off on a dead run, the bit between her teeth, and in such a panic that she was wholly beyond control.

"Oh, mother! the mare is running away!" exclaimed the terrified Maggie. "We shall be killed!"

The mother had seen the danger, and reaching forward said:

"Dorsey, let me help you hold the reins!"

"Don't touch the reins! leave me alone!" he replied, sawing on the bit and tugging with might and main.

"Let's jump out!" said poor Maggie, rising from her seat, but her brother caught her roughly by the arm, as he held the reins for the moment in his single hand, and flung her back.

"Don't you stir, but hang on as hard as you can! Don't dare to do anything else!"

Meanwhile Mr. Dawson, who was but a short distance to the rear, saw the peril that had come upon his family. He started on a run, and, recalling the canal at the foot of the hill and not far off, he called out:

"Jump out! Quick! all of you! Out at once, or you'll be killed!"

The wife heard the frantic appeal, but something told her to disregard it. At this terrific pace there was more danger in leaping out than in staying within the vehicle. Maggie too caught the words, and in an instant was on her feet again.

"Papa says we must jump, and I'm going to mind him!"

"No, you are not!" shouted Dorsey, who held the reins with both hands, but spoke in such a severe tone and with such a startling manner that his sister shrank back, covered her face with her hands, and moaned with dread.

Dorsey was working like a hero. He was sawing and pulling so hard at the reins that he feared they would break, in which event death or dangerous injury was sure to

follow. But there was no stopping the crazed animal.

It is wonderful how the brain will act at such times. The father, a man in middle life, was running down the slope, still shouting, when he could command his breath, for his people to leap out; Maggie was cowering and moaning with fear, and the mother was praying and asking herself what she could do to lessen the danger, while the boy of fourteen was the only one who kept his wits about him.

"If we keep this up three minutes longer," he thought, "we shall all be in the canal. I'm the only one that can swim, but I could manage mother and Maggie if they didn't get tangled in the carriage when it goes over, as go it must. The mare will kick out and likely enough kill one of us. There's only one thing to do."

And he did it. With the horse on a headlong gallop, he threw all his strength on the left rein, twisting the head of the beast aside almost at right angles. She could not help swerving, which was what the boy meant her to do. The left front wheel ran

into the fence and was instantly wedged fast, stopping the carriage so abruptly that, had he not let go of the reins and seized his sister she would have been flung head first to the ground. As it was, although he shouted a warning and his mother did what she could to brace herself, she was much jarred and shaken.

The instant the front axle caught fast the two traces snapped like yarn, and away went the mare down the road, with lines dangling and harness flying. Feeling herself free from the load that had chased her so furiously down the hill, she wheeled abruptly aside, trotted through the open gate, and, halting in front of the stable door, whinnied for someone to open and let her in.

She had hardly passed from view when the alarmed father was at the side of the carriage, anxiously inquiring whether anyone was hurt. A glance showed that nothing was the matter with Dorsey, and a moment made clear that Maggie was suffering only from fright. Mrs. Dawson sat erect, with lips closed, very white in the face, trying hard to overcome the pain she felt.

She started to speak and then fainted. Maggie, thinking she was dying, broke into frantic cries, but Dorsey was out of the carriage with one bound and over the fence at the side of the brook which fed the old pond. His straw hat leaked a good deal, but he was back again in an instant with the crown half full of the cooling fluid, which he dashed into his mother's face.

The shock caused her to revive at once. She raised her head from the shoulder of her husband and smiled.

"I feel better; is none of you injured?"

"Not in the least," replied her husband. "Maggie, keep still or I will punish you."

The threat was enough to check at once the outburst of the little girl.

"But you must have been hurt, Lucy; how bad is it?"

"When the carriage stopped so suddenly, I was thrown against the seat in front; it made me faint for the time, but it is all over."

"Are you able to walk?"

"Perfectly."

"Let me help you out."

She was aided to the ground, and the family started to walk the short distance to their home. When they arrived there, two of the hired men were sent to bring the vehicle. The mare had already been freed from the torn harness and led into the stable, and the alarmed ones were on the point of setting out to learn the extent of the accident.

It seemed curious that the one who had the least to do with the mishap showed its effects most, but such was the fact. After Mrs. Dawson had rested awhile, she felt fully recovered, and busied herself about her household duties. It was natural, perhaps, that Maggie, young, bright, and healthy, should quickly regain her spirits, especially when she realized how providentially everything had ended. As for Dorsey, he lost no time in visiting the mare in the stable to learn how it had gone with her. She showed a few scratches, but they were of no account, though she was in a tremor of excitement and would not allow him for a time to approach her. After all, it was the harness that had suffered the most damage, but that was nothing.

Mr. Dawson was restless for the rest of the day. He ate little at the noonday meal, took a long walk by himself in the afternoon, and spent a good portion of the time after his return in reading his Bible, but had few words to say. At the family altar that night his thanks were fervent to the kind Providence who had saved the lives of his dear ones, and in his prayer were words of gratitude for the noble son who was the means of bringing about this great mercy.

It was the first time that the matter had appeared to Dorsey in that light, and, while on his knees, he felt his face flush at the words of his parent, who had never before made such a reference to him.

With the end of the prayer, all the depressing effects of the accident passed away. Mr. Dawson was his own cheerful self again. Calling his son to him, he took one hand, and, laying his other on his head, said:

"Dorsey, do you know that you disobeyed me to-day?"

"When?" asked the lad, swallowing a lump in his throat.

"I told you and the rest to jump out of the

carriage. You not only refused to do so, but when Maggie started to obey, you stopped her."

"I was afraid, father, that if they jumped out while we were going so fast they would be hurt, and of course *I* couldn't leave them. Then, I guess you didn't see things as I did."

"That scheme of running the front wheel into the fence was your own idea, was it?"

"Of course; I saw that it was the only thing to do."

"One member of our family made a fool of himself; that member wasn't your mother or Maggie or yourself. Enough said; kiss me good-night."

THE RUNAWAY.

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CHAPTER IV.

SEVERAL EXPERIMENTS.

THE incident just told did more than anything else to give Mr. Dawson a knowledge of his son's ability, though it must not be forgotten that the views of his wife had good effect. He had never failed to see the moral worth of the boy, but, a hard-working man himself, he naturally looked upon the ingenious efforts of the lad as the result of a dislike of labor, instead of an outlet to his natural inventive faculty.

"But," thought the parent, "there's no denying the fact that Dorsey always gets his work done, and if he finds some better way than the old-fashioned one, it is hardly fair to blame him. When he grows older, he may invent something that will prove of value. The field is a big one, and many persons have not only helped mankind by new ways of doing labor, but have made themselves rich.

It must have been that faculty born within Dorsey that enabled him last Sunday to see the right thing to do at the right moment, when, if my advice had been followed, someone would have been killed. From now on he may do as he pleases, for I'm certain he will do nothing wrong—helloa! he's up to something now!"

These thoughts came to the parent while standing near the corner of the kiln, looking out upon the men busy at work. The last exclamation escaped him when Dorsey came quietly out from behind the haiks of bricks under the long shed, where they were piled up ready to be wheeled to the kiln. Dorsey held an odd-looking rake in his hand, the width of the lower part being slightly more than the width of one of the rows of bricks as they lay upon the hard earthen floor where they had been placed by the off-bearers.

Mr. Dawson smiled, for he saw what this meant. The boy had made a contrivance for turning up the bricks, by "raking" them, as may be said. It will be seen that this would prove a great aim if successful, for it would

save the back-wrenching toil that can never be forgotten by anyone who has undergone it.

As the boy walked out upon the lower end of the yard, where the bricks lay, they having been placed there the day before, his face was away from his father, who came quietly forward to watch his actions and was not seen by the youth, who was deeply interested in his own experiment.

Taking position, Dorsey carefully pushed the teeth of his new-fangled rake into the space between the first and second rows of bricks and then gently drew the handle toward him. Instead of rising on edge, the bricks slid over the smooth surface, and remained with their faces down. He tried it again, but the bricks were so askew that it was more difficult than ever to turn them up. He made an impatient effort, and one of them came up, another rising part way and falling back again.

Leaving them, Dorsey now tried the second row, but with no more success than before. Finally, by vigorous work, he brought up a couple of bricks, but something

did not suit him. He threw the rake aside and stooped down to examine the turned bricks. From the side of each the teeth of his implement had gouged out a piece of clay, so marring its form as really to spoil it.

"How does it work?" asked his father, a few paces behind his son. The latter started and looked around. Then he shook his head.

"It won't work at all; *that* machine is a failure."

"Can't you change it so it will do what you wish?"

Dorsey was silent a moment, and then shook his head again.

"I can turn up the bricks with it, but it will spoil every one. You can see by looking at those I have tried it on."

"Which being the case, I agree with you that it is a failure, but I don't understand *why* it is a failure. It looks simple enough."

The son then gave in his own way the real explanation of the failure of thousands of inventions which seem to promise success.

"Mr. Westervelt told us at school one day that nothing ever thought of can take the place of the hand. Now, it seemed to me

that in turning up those bricks the action of my hands and fingers was so simple that this thing would do it just as well; but I missed it. There are movements of the fingers of which I did not think, and that's the whole trouble."

"I have heard the same truth. I remember hearing my father say that in making the threads on the rat-tail file, it was impossible to do it by machinery, because the blows must be *intelligent.* There are many wonderful contrivances, but, behind them all, must be the directing brain, as is proven by this little difficulty which has just defeated you."

"Yes," replied Dorsey with a sigh and his pleasant laugh; "there are some things which a boy can't get round, and I may as well tackle these bricks."

"No, my son; I have arranged to have the gang do that hereafter. If you will bring the drinking water, lute off the yard, and keep the sand box full, you may give the rest of your time to finishing that new water wheel upon which you have been working for the last few weeks."

"Oh, pop, how I thank you!" exclaimed the grateful lad. "I *did* hate to turn up bricks. I'm willing to bring enough water for the men to take a bath every hour; I'll keep the sand box full, and lute the yard till it's like a barn floor."

"There! there! off with you, and have done with your nonsense," said the parent, who, like every person who does a generous deed, felt keener pleasure than the object of his kindness. The happy boy saw that the duties named were performed, when, whistling with delight, he broke into a run for the most attractive place in the world just then to him.

Now, from what has been told about Dorsey Dawson, it would strike the reader as strange if he had failed to turn to account the fine water power in the rear of his home. The same motor that had kept a sawmill running for years was still there, for the stream was a vigorous one, and had the outlet been closed for a single night the water would have flooded most of the brickyard, whereas the stream along the side of the yard met with no check in its course, and, passing

through the opening in the base of the old dam, tumbled over the rocks and stones for a dozen feet before reaching the bottom of the channel, whence it made its way through the culvert under the canal to the Delaware beyond.

It may be said that this fine opening was the first thing that caught the eye of the lad when his parents removed from Trenton to the brickyard. He was then a small boy, brimming over with curiosity. The first thing he did, after some cautious peering around, was to pass through the culvert to the river and then come back by the same route. This was easy, since the stream hardly covered the bottom in the culvert, and, being barefoot, he cared nothing for wet feet.

His next act was to make a trough, by nailing two long boards together at right angles to each other. This, when placed in position with the small end downward, suggested a letter V. The upper end, being shoved into the stream of water just before it fell over the rocks, caught most of the volume, which shot downward and out at the lower end that was held on a framework the lad had made.

It was at this place that he put up his first water wheel, the pattern being of the crudest form. It was made of four shingles, each with an end fastened in an axle, from which they stuck out like the spokes of a wheel. The column of water striking the blades turned the wheel slowly round and round and that was all.

The plaything amused the boy for some weeks, but he grew tired of seeing the flat wings splashing over and over and doing nothing. Young as he was, he could not fail to note that the power which turned the plaything was but a small part of that which went to waste, and that the stream in itself held the means of doing a great deal of useful work.

"Mr. Harbour tells me that the sawmill used to have an undershot wheel," thought the lad, "and that's the weakest of the four kinds of water wheels; there's enough fall there for a big overshot, the strongest kind except the turbine, which I don't know much about, for it is nearly all hid under water, where you can't see it, but a good overshot would turn the machine and save the horses."

That night he asked his father why he did not run the machines by water instead of horse power.

"You could get enough every night to keep the sweep going all day, and I'm not sure you'd have to save up any water at all."

"All that was thought of long ago, my son. There is no question that with a little simple machinery we could do the work you speak of, but it would hardly pay. The first machine is near enough, but the power would have to be carried to the second a hundred feet beyond, and that would mean more cog-wheels or belting, with the liability of their getting out of order. Don't you see, too, that running the machines is only a part of the work? We must have a horse for the new clay that is dug out every day and to draw wood to the kiln, as well as to the house; to go to the mill and to church and on errands. We have use all the time for both horses; their keep amounts to little, and since they are able to do all the work needed, where is the use of adding the expense of changing to water power?"

"I didn't think of that," was the natural

reply of the boy, as he went off to his simple water wheel, which you will remember was made long before the runaway accident. As he came up over the bank and passed down the other side, he was in sight of the valley-like depression where he had left his first contrivance flapping its broad flat arms under the splashing of the current from the end of the trough.

A glance showed him that something was wrong, for although the water struck one of the paddles with a force that sent the drops in all directions, the wheel was motionless, as if someone had locked it. A second glance told him the cause. The wabbling axle, through much wear and friction, had been raised out of its socket, and the whole thing was askew.

Dorsey lifted the upper end of the trough clear of the current, and rested it on a stone that he had put in place for that purpose. This of course shut off the supply, which now tumbled down the rocks, and left him free to work upon the wheel, without danger of the water dashing upon his head.

It took him but a minute to understand

the trouble. He saw that a little labor with his jack-knife would make everything right, and, bending over, he began work, pausing now and then to see how the axle fitted into the new socket he was making. A natural judgment always guided him, and what seemed perfection to another was imperfection to him. He kept working with care and skill, until at last he was suited. Then he leaned over to fit the axle into the place made ready for it. As he did so, his head was under the mouth of the spout, from which not a drop of moisture just then was falling.

"There!" exclaimed the pleased lad, "I think that will go all right-——"

At that instant the upper end of the wooden spout dropped into position, and the water started down it with its usual volume. The first plunge of the cool current from the lower end went straight down the back of Dorsey's neck to his shoes. With a howl of dismay he leaped to one side, turning a back somersault before he could right himself and look about him. Above the dash of water he heard merry laughter, and caught sight of

his sister Maggie running as if for life. It was she who, seeing her brother absorbed in his work, slipped around to where the upper end of the trough was resting on the stone and dropped it into position.

Mingled with her laughter was that of another, and glancing toward the house he saw his mother almost overcome with mirth. He knew on the instant that *she* was the author of his startling bath, and that it was by her advice that the girl had eagerly hastened to play the joke on him.

Was he angry? Not a bit of it. Fond of jokes himself, he knew how to take one when he was the victim. His laughter as he climbed to his feet was almost as hearty as that of the other two. Shaking his fist with pretended wrath at his parent, he called:

"I'll get even with you for that, mother."

And although some time elapsed, he carefully formed his plot, and carried it out with a perfection of detail that shall be fully set forth in the next chapter.

CHAPTER V.

"GETTING EVEN."

DORSEY DAWSON bided his time. When chaffed by his sister during the weeks and months that followed, he shook his head, shut his lips, and replied with dreadful significance:

"You just wait; I shan't forget that. I don't count *you*, sister, in this business; it was mother, and *she* shall hear from me when she doesn't expect it."

The lad had been at work on his new wheel for several weeks, when his father, as has been told, gave him permission to use more time in working on it. It will be remembered that he had become quite a large boy, and his mind was growing fast. He was deeply interested in natural philosophy, or physics, and with the help of his teacher had learned a good deal of the laws of mechanics. The principles of the four forms of water wheels (undershot, breast, overshot,

and turbine) are so simple that it was easy for him to master them. Although the last-named is the strongest, it was hard to make, and he fixed upon the hardly less powerful overshot for, as will be recalled, every aid that could be needed was at his command.

When his wheel was finished, it was about four feet in diameter, and well provided with buckets of half that width. It was balanced on a strong axle, where it moved so freely that a sweep of the hand sent it spinning round eight or ten times. The trough which carried the water to the highest point of the wheel was of the same width as the rim. Thus every part of the resisting bucket was struck at the same instant by the whole force of the sheet of water, which added its natural weight to its momentum, something which cannot be done either by the breast or undershot pattern.

The youth had so mended the dam that a good deal of back water was secured, without affecting the brickyard. This caused the current to dash down the few feet of incline before striking the wheel. At night the gate which admitted the water to the wheel

was closed and the current turned into the channel at the side, which was broad enough to give an outlet for all the overflow that might be caused by a violent downpour of rain. This wheel was made for business and not play. Consequently, when there was no work waiting, it was allowed to rest, for since there can be no movement without friction, the young inventor was wise in saving his machinery.

The axle on which the wheel turned reached a dozen feet to one side, where Dorsey had secured an old cart-wheel to the shaft. When the water-wheel revolved, of course the other wheel turned with it, the revolutions of both being quite moderate, though the power was considerable. The youth had no way of getting belting, so he caused the tire of the large wheel to turn against that of a much smaller one which was wedged hard against it. My young reader does not need to be told that in this way he secured an increased velocity for the lesser wheel, with a loss of power at the same time. He could afford the latter, and needed the former.

The lesser wheel had a projection on the side of the felloe to which was fastened an arm, jointed below and connected with a bit of framework, working in a groove. As the small wheel spun round, the arm followed it, and the framework leaped up and down, just as may be seen at any time in the old-fashioned sawmills of the present day. In other words, the contrivance changed the circular movement to a vertical or up-and-down one.

With such care had everything been done, that when, without anyone looking on, Dorsey raised the gate and let the water down the wooden slope to the buckets of the wheel, the whole thing instantly started off with a smoothness that made it seem as if every part was oiled. The two big wheels went round and round at a fair rate, while the little one whirled five times as fast, and the framework darted up and down as if eager to seize hold of something and show what it could do.

Some cautious experimenting showed Dorsey that he had more power at command than he had suspected, and the pleasure

thrilled him which comes to one who after long labor and much misgiving finds victory in hand.

"It will do!" he exclaimed with a glow of pride, as he glanced up at the house and saw no one at the windows. Out in the highway, however, where it passed over the culvert, old Mr. Harbour had paused and was leaning on the fence and watching him with a grin. Seeing the boy look toward him, he called out:

"Well, youngster, what next?"

"Wait, and you'll see!" shouted back the boy, who climbed up to the gate and shut off the motor. The old gentleman decided that it was hardly worth his while to tarry, so he plodded up the road, muttering:

"I don't know what to think of that 'ere boy; he's going to make either a blamed fool or a powerful smart man, and I'll be hanged if I know which."

Dorsey now came out of the hollow and went into the kitchen of his home. Bridget, the lusty Irish servant, was getting dinner ready for the hired men, singing one of the ditties of her country in a rich and musical,

though untrained voice. She, like everyone else, was fond of the obliging lad, and smiled when he came through the door.

"Where's mother?" he asked in a whisper.

"Sorry it is, but she's not faalin' will and is a-layin' down; she told me to awake her, for the choornin' must be done, but she looks that weary that I haven't the heart to do the same. I'll thry to git time to do the choornin' this afternoon, for it won't do to wait any longer, and it's the kind of worrik that I don't like—not at all."

"I'll help you, Bridget."

"That I know, but there's enough to make us both tired."

Dorsey stepped softly across the floor and whispered again:

"Don't speak too loud; mother may be awake, and I don't want her to hear me."

"Ah, ye sphalpeen, phwat mischief are ye up to now?" asked the puzzled Bridget.

"Will you help me, Bridget?"

"Help ye to do phwat?"

The churn was standing behind the open door. It was of the old-fashioned kind,

narrower at the top than at the bottom, and with a dasher whose handle came up through a hole in the lid. The churn was so nearly full of cream that even so strong a lad as Dorsey could not lift it from the floor.

"Please help me to carry it down the steps at the back of the house, Bridget."

"And phwat fur?"

"You'll see when we get there."

"Arrah me, phwat a boy ye are!" exclaimed Bridget, as Dorsey tipped the vessel sideways, so that both could grasp it by the bottom. Their united strength made it an easy task, and, stepping carefully through the door, they slowly made their way down the steps, with the burden upright between them. Then they "inched" across the hollow to where the big and little wheel stood idle, and, stooping over, set the churn on the ground, the Irish girl more mystified than ever.

"Bridget, can you stay here a few minutes?"

"I haven't the time, but being it's yersilf that asks, I'll do the same."

Anxious that she should enjoy his triumph,

Dorsey was too wise to make unwise haste. The churn was placed in the exact position and then secured. The handle was fastened to the framework, and the boy turned the big wheel several times with one hand while he watched the action. It did not quite suit him, and he made several changes. Finally he got it right.

The awed Bridget caught an inkling of what was coming, but mingled with her wonder was no little fear, and she retreated to the far side of the hollow, where she could watch the strange thing from a safe distance.

"Now, don't be scared," he said; "there's nothing that 'll hurt you."

She was not wholly at ease when Dorsey ran a few steps to raise the gate that loosed the flow of water. He freed only a small quantity at first, and the wheel did not move, though it needed only a start to keep going. Then he added to the flow.

Suddenly the wheel started, the other two of course doing the same. The framework danced up and down, and the dasher rose and fell with such force that some of the butter-

milk flew in drops through the tiny openings at the side of the handle.

The next moment Bridget uttered a scream, and covered her face with her apron.

Darting back to the churn, Dorsey paused long enough to make sure all was right, when he turned upon the servant, whose screaming had now turned to moaning.

"What's the matter, Bridget?"

"Ah, ye are not right! ye are not right!" she wailed.

"What's wrong about me?"

Instead of replying, she turned and ran up the steps and darted into the kitchen, while the happy lad gave all his attention to the business in hand. Standing beside the churn, he watched the action of the wheels and framework, ready to throw them out of gear the instant anything went wrong. This was done without shutting off the flow of water, since the axle upon which the smaller wheel turned could be shifted back by means of a lever, so that the rims of the two wheels did not touch, when of course the smaller one ceased turning.

He recalled the aching arms caused by his

efforts to make the butter "come," and noting the vigor with which the dasher was working he knew that the task would be finished in a much shorter time than usual. Sooner, however, than he expected, he noted a slight decrease in the vim, as it may be called, of the wheels. They moved as if tired, and, suspecting the cause, he shifted the axle of the smaller wheel backward, and then, freeing the handle from the framework, thumped the dasher against the lower side of the cover until it was loosened and easily lifted off.

The churning was finished. In the midst of the thick, creamy buttermilk floated a mass of golden butter, needing only a slight working over and the adding of a little salt to be ready for the table. The new water-wheel had done its work superbly.

Looking up, Dorsey saw his smiling mother standing a few feet distant, while Bridget's round, moon-like countenance was visible in the door beyond, as she peeped timidly down upon the scene, not yet fully understanding all that her eyes told her.

"I heard her scream," explained the parent, "and hurried out to see what it meant."

"And have you learned?"

"Yes; all is clear to me."

There was moisture in the eyes of the son as he asked:

"Do you remember that little joke you and Maggie played on me, when the water took a dive down my neck?"

"I shall never forget it, and I have felt sorry more than once."

"There was no need of that; it was a warm day, and I liked the bath; but I told you I would get even with you, and I think I've done it, mother."

And there was moisture in her eyes as she replied:

"You have, my son."

CHAPTER VI.

SCHOOL DAYS.

NATURALLY there were other results from the new water-wheel. The home of the Dawsons being in the country, where there was no end to the supply of wood, no other form of fuel was used. Dorsey sighed many a time for some of the anthracite coal of which hundreds of tons passed the house daily on the railway, but it was too costly to be thought of, and none of it ever entered the house, where much fire was needed for cooking purposes in summer and still more for warmth throughout the cold of winter.

No one will deny that sawing wood is a good exercise, but every boy will insist that there can be too much of a good thing, and the new water-wheel brought a change almost as grateful to Dorsey as the relief from turning up bricks. The buck-saw was taken out of its framework and fixed in that which

was really intended for it. Then, when the gate was lifted and the water turned on, the sawmill was going again, though in a lesser form. All that Dorsey had to do was to hold the oak and hickory in place until the lively saw ate its way through, and let the wood fall apart in pieces of the right length for the stoves. The saw never grew tired, though now and then its teeth needed filing, and the task of feeding the greedy thing was so easy that an afternoon's work furnished a week's supply of fuel.

Country wood, however, is not always regular in length nor smooth of grain, while some pieces are large enough to be called logs. Others are so gnarled that the task of splitting is hard, and that had to be done by the youth, who soon had a cord of wood piled up in the hollow at the rear of his home.

But the splitting-problem was one of the easiest he ever had to solve. When the pieces were sawed they were of the same length. Each in turn was laid upon a shelf, with the further end of the stick resting against one of the rocky walls of the hollow, so that no power could drive it an inch

further in that direction. In the method I am describing, swiftness of movement was not required, but rather the contrary; consequently, by using the leverage principle Dorsey was able to gain great power, by means of which his machinery slowly shoved an iron wedge forward, the thin, knife-like edge entering the tough wood, into which it was forced to the head; but generally before that was done the block snapped apart, sometimes with a violence that caused the parts to fly several yards away.

This occurred just as Mrs. Dawson and Bridget were coming down the steps to gain a closer view of the work. One of the pieces fell at the feet of the Irish girl, and spun around several times. With a scream she stumbled up the steps and plunged through the kitchen door, calling out that she knew the boy wasn't "right." Nothing could persuade her again to approach the dreadful machinery that to her was also not "right."

Dorsey was not only given more freedom by his father in the use of his time, but the parent generously aided him in other ways. At an end of the opening, which seemed to

be a natural one, at the rear of the house, a roof was made which shielded the fuel from rain, and served as a place for the boy's tools. From time to time improvements were added, belting was bought, new wheels put into service, a small circular saw, a grindstone, and other aids appeared, until the happy youth had some warrant for claiming to be the owner of a machine-shop that could do all the work of such establishments.

A fine trait in Dorsey Dawson was that he was not spoiled by the indulgence of his parents. Nothing suited him better than to work in his little shop, to think out some new contrivance, or to study the works on mechanics, many of which were loaned to him by Mr. Westervelt, who had become interested in the youth and visited him at his home quite often. There were certain chores that had fallen to the lot of Dorsey ever since he was big enough to work, and he neglected none of them. Since the objection of his father to his method of milking the cows, he never used it, for from what he afterward heard he believed it to be not the best means of drawing the milk from the udder, even with

the improvements that have since been made. Maggie often helped him in milking, and since there were but two cows and one of them was dry as a rule when the other was not, the task was so light that it was an easy thing for her to relieve him of the work, except in cold or stormy weather.

One of a country boy's duties is to "carry in" wood each night to last through the evening and in the morning. The sticks are generally dropped in the wood box in the kitchen beside the stove, with the kindlings split and ready for use in starting the fire the following morning. Dorsey saw how easily he could arrange a contrivance by which to carry the needed fuel from the shed below to the kitchen door, but he never put the idea into practice; for he really felt ashamed to do so. A few armfuls were all that were needed, and to shrink from taking them up the brief slope would have meant that he was lazy, which he was not.

It had been the custom of his father to start the fire each morning, and it is therefore more to the credit of the boy that he offered

to do that work, which was never forgotten when he was at home. This task means a good deal more than some would suspect. It is possible at times to keep a few embers of a wood fire, but to do so they must be smothered in ashes, which shuts in all the heat. The embers serve only to kindle the fire, and are therefore of little account, since shavings and bits of pine do the work just as well.

To leap out of one's warm bed on a wintry morning, when the temperature is below zero, start a fire in a cold stove, and then shiver and wait until your teeth stop chattering, is a task which no one need covet; but Dorsey did it every day through the winter, set the kettle boiling, ground and prepared the coffee, and then went out and looked after the cows and horses. Before this he washed his hands and face in water that was rarely free from ice. Once Mr. Westervelt asked him what he thought was the coldest thing in the wide world, and he promptly replied:

"The handle of a pitchfork or a shovel on a frosty morning. When I take hold of it I can feel it to my toes; it makes my hands warm

to put them into the ice water or to roll a few snowballs."

The teacher laughed.

"I fancied that the sheets of the spare bed in a country house are the coldest thing in winter as they are the hottest in summer, but I suspect you are right."

The brick-making season closed with the coming of cold weather; no bricks were left except those that had been burned in the kiln, and of which a few were sold now and then and taken away in wagons or sleighs. The men were paid and went off, Bridget being among those whose services were dispensed with when the boarders left, so that the entire family consisted of the parents and their two children.

But no discord ever entered there, for all were loving and fond of one another's company. Dorsey was pleased to help Maggie in her studies, while the mother was equally glad to give the boy a lift in some of his lessons, in which he was not so expert as in mechanics. Each was fond of reading, and they talked over matters with an understanding that would have surprised many

who made far greater claims to education.

It was a long walk to the school, which stood near the church, but Dorsey was proud of the fact that for three winters he had not missed a day. Many a time he fought his way in the teeth of a blizzard, with the snow to his knees, when other boys who had not half the distance to travel stayed within doors. When he arrived and unwound the warm comforter from around his neck and ears and took off his overcoat, his cheeks were like apples and his blood tingled with the ozone that thrilled every artery and vein in his body. He was ready to dash out of doors again and engage in snowballing with his teacher, wash the faces of the big girls, wrestle with the boys, and roll over and over in the snowbanks, going home, often when the moon was shining, hungry, good-natured, ready for the chores that were awaiting him, eager for his studies and daring Maggie to join him in a frolic.

She would have been glad to go with him on these sturdy trips to school, but the mother was wise in keeping her at home,

though her absences were few. It was so cold outside that Dorsey unshipped his machinery, and made everything snug against the return of mild weather.

There were no more regular attendants at church than the Dawsons, but during the winter the night meetings were held at some private house in the village. Since it was not thought wise to leave the home alone, the parents sometimes went, or the children took their turn, or one of them joined the father and mother. Naturally, too, there was much visiting. Dorsey's young friends were glad to spend an evening with him, for they were sure of having all the nuts, apples, sweet cider, and pie they could dispose of, while the mother entertained them with pleasant stories or aided in their innocent games. Maggie had her visitors, too, and she and Dorsey enjoyed returning the calls. One fact was noticed by the parents of the boy. Rarely or never was a visit made to the children by boys or girls that they did not ask Dorsey for some help in their lessons. This was not only proof of his good scholarship, but of his kind nature and his ability

to give instruction, though neither the father nor mother had ever heard of the youth's explanation of the fish problem made when he was several years younger.

There was one visitor who was doubly welcome at the happy home: he was Mr. Westervelt, the teacher, and it cannot be doubted that he spoke the truth when he said that he liked to visit there more than any other place in the neighborhood. He was a college graduate, a hard student, who expected to follow the profession of teaching, and therefore succeeded because his whole ambition lay in his work. As I have explained, he studied the disposition of every one of his pupils, and did his utmost to bring out and encourage the ability which he insisted lies within every being, even though it may need awaking. His views were so like those of Mrs. Dawson and (thanks to her) her husband also, that the three found congenial ground upon which to meet and discuss questions in which the children were as much interested as the adults.

When the teacher made his almost weekly

visits he was forced to stay over night, and his hosts would have been glad had he remained a week at a time. He and Dorsey often spent a Saturday in boating and fishing on the river, or later in the season in hunting among the hills and mountains near at hand. In the autumn they took Maggie, and perhaps some of her friends, on nutting excursions. Mr. Westervelt had been one of the best athletes in college, and did not neglect his exercise. He was a good sportsman, but no better than Dorsey, who in some respects surpassed him. Once when the teacher let fly at a whirring partridge and missed it, Dorsey brought it down, much to his own delight.

"Accidents will happen," laughed Mr. Westervelt. "I don't believe you can do that again."

"Wait till I get the chance."

The chance came with the following ten minutes, and the lad repeated the exploit. The teacher said nothing, but ere long had his revenge, when he shot a bird that Dorsey had missed.

"We'll call it even," remarked the latter.

"Not until I repeat the exhibition," replied his instructor; but the pupil took care not to give him the chance, and Mr. Westervelt was never quite clear in his mind that the lad had not purposely missed to save his feelings.

CHAPTER VII.

AND THE FUTURE?

It was on a crisp autumn day, when the sun shone bright in the unclouded sky, that Mr. Westervelt, Dorsey Dawson, his sister Maggie, and two of her girl friends went into the mountains on a nutting excursion. Dorsey carried a bag for the harvest they expected to gather, which was to consist entirely of hickory nuts. Where there was such wealth, the party took their choice. It was rather late for chestnuts, of which they had gathered a full supply a couple of weeks before; walnuts were not held in high esteem, and no attention was paid to them. The long, rough-coated butternuts were better, and fully a bushel of them were spread on the garret floor, to dry and absorb richness.

Do you know how to crack a butternut? You must not lay it on one side, like a wal-

nut or hickory nut, but stand it on one end. A sharp blow with the hammer will then cause it to fall apart, exposing the rich, oily fruit, which is one of the finest that grows in the American woods, and of which every youngster is fond. The oil from the fruit is the best in the world for a clock or watch, while the meat itself is rich and good.

The choicest hickory nuts are those known as "shell-barks" or "shag-barks," the latter name probably being due to the shaggy bark of the tree, which stands in long scales or splinters on the trunk, as if it has so much more than it needs that it casts off a portion, which can be easily torn loose without injury to the tree itself. The nut has a thin shell that any boy with a sound set of teeth can crack without other help, though the practice is not be encouraged. When the nuts have become dried the meat is excellent. The odor from the nuts, the bark of the trees, and the withering leaves is one of the sweetest perfumes that linger in the autumn forest. At that season, too, the running streams are clear and icy cold. When a lad feels thirsty, all he has to do is to lie down on his face

and with his lips over the water quaff to his heart's content.

Dorsey knew every fruit-bearing tree within a long radius of his home, and the happy party had not gone far, when they came to a big shag-bark, whose twisted limbs were laden with gaping husks, within which the white nuts were nestling by so slight a hold that only a jar was needed to bring them down in a shower. The keen frost had already covered the ground with the fruit, though by far the greater part dangled on the limbs.

When the girls caught sight of the nuts on the leaves, they screamed with delight. Girls always do that. Dorsey flung down his bag, while their nimble fingers began rapidly gathering the wealth before them. The youth looked up at the laden branches, and said to Mr. Westervelt:

"I'll climb the tree and give the limbs a shaking; that's the easiest way to bring all the nuts to the ground."

"Now, my inventive young friend, can't you think of a better plan?" asked the teacher.

"Why, that's the only one there is," was the surprised reply of the youth.

"You think it is? Let me show you something. Come with me."

He led the way a few paces to where a large decayed branch lay on the ground. It was too heavy for either to lift alone, but by putting forth their united strength they finally carried it between them, each holding fast by a stump of a limb.

"I see what you mean," remarked the lad; "queer I didn't think of it."

"Very well; do your part."

Walking fast, they broke into a trot, with the butt of the log pointed toward the trunk, against which it banged with much force, they letting go at the same instant and allowing the log to fall to the ground. The blow of the battering-ram sent a shiver through the tree from top to bottom, and it seemed as if every nut on the branches was loosened, for down they came in a perfect shower. Each girl received several on her head, whereupon she screamed again and ran from under, when there was no more danger from the storm of fruit. Pausing for a few minutes to give

way to their merriment, their escorts joined in picking up the nuts, of which they soon had enough to fill the bag half full. A visit to another tree secured all they wished, and they set out for home, frolicking and laughing all the way.

As it was Saturday, the teacher and his young friend spent the afternoon in hunting, returning at nightfall, laden with birds and rabbits. The man had the larger part, though he could never free himself from a suspicion that had the lad done his best the result would have been different.

Mr. Westervelt willingly remained over night, walking to his home in the morning to prepare for church. Maggie became so sleepy soon after the evening meal that she kissed all good-night, and, climbing drowsily to her room, was sound asleep almost within the same moment that her chubby cheek touched the pillow. The four who remained in the sitting room, where the hickory logs crackled on the hearth, talked long and earnestly.

"Dorsey is now fifteen years old," remarked the teacher, looking with admiration at the fine sturdy figure on the other side of

the fire beside his mother; "and I suppose you have decided what his future profession is to be."

"We can hardly say yes to that," replied the father, "though wife and I have had many talks over it. My expectation until two years back was that he would follow me, and in time take charge of the brickyard. It will afford him a fair living, though he is never likely to grow rich at the business. When he was much younger his mother fixed her hope upon his becoming a minister, but her views have changed, and the same may be said of myself."

"Yes," added the mother; "Dorsey has the right character for a preacher, for no boy could be more conscientious, but his tastes do not run that way, nor do I believe he has any special skill in that direction."

One of the best traits of Mr. Westervelt was the honesty with which he spoke his sentiments.

"You are right; Dorsey lacks oratorical ability; he is a poor reader and speaker, and would rather do anything than 'speak a piece' before the school. While I have not

excused him from that duty, I have made it light."

"I hate it!" exclaimed the boy.

"What of his aptitude as a lawyer?" asked the father.

"The profession of law, like that of medicine, is dividing into specialties. He couldn't earn his salt as a jury lawyer, but he would do well in some other branches, such, for instance, as a patent attorney, or what might be called an office lawyer—that is, if he liked it."

"I don't," interposed the youth with a disgusted shake of his head.

"Now, don't worry," said his mother, pinching his red cheek; "we're not going to make a lawyer of you."

"What of medicine?"

"He would make a good surgeon, because of his mechanical talent, his coolness, and his readiness of resource."

"None of that for me," was the protest of Dorsey.

"It is plain whither we are drifting," observed the teacher. "He is gifted with the inventive faculty and the power of research; he showed his bent of mind from the first. While

still a small boy he made more than one ingenious contrivance. He is fond of mechanics. If I allowed him to follow his inclinations, he would study nothing else at school. You should send him to some scientific school, where he will have every advantage that can be given him."

"What of college?"

Mr. Westervelt smiled.

"It sounds strange for me, a college graduate, to advise against it, but I do. The four-years' course is of immense advantage to nearly everyone, but in his case many of the studies are so distasteful that the time he devoted to them would be wasted. The field for original investigation has no bounds. I believe we are on the verge of the most wonderful discoveries made since creation. It is my firm conviction that the day is not distant when a sure remedy for every disease will be found, always excepting, of course, old age, which isn't a disease; that fifty years from now people will pity the ignorance that allowed men and women to die of consumption, pneumonia, heart failure, and the numberless diseases that carry off thousands annually;

they will laugh at our cumbersome locomotives which could travel only a mile a minute; they will wonder that a hotel or dwelling was allowed to take fire and burn down, destroying perhaps many of the inmates; they will speak of the slow-going steamers that required a week to cross the Atlantic; they will be astonished that Montgolfier's balloon knew no real improvement for a hundred years, when every man ought to have such a convenience at his door in which to travel whither he wills; they will want to know why people did not reason that, if a message can be sent a thousand miles in a few seconds, a man can do the same with himself; they will justly shudder with horror when they read the accounts of the explosion of warships, and of great battles where thousands of brave men gave up their lives to satisfy the ambition of a few tyrants and haters of their kind."

Dorsey Dawson's eyes kindled at the eloquent words of his friend, which stirred a responsive feeling within his breast. Vague glimpses of the marvelous fields of knowledge awaiting exploration, a yearning to be one of

those explorers, and that deep, moving faith that God had meant him to be such, had stirred his heart, when walking the fields, wandering through the silent woods, or lying on his bed looking at the rafters, listening to the beating of the rain on the shingles, and communing with the Author of all those miracles. The boy straightened up in his chair, and kept his eyes on the teacher, whose face glowed from his own words. When he had finished, Dorsey uttered a sigh, and said, as if speaking to himself:

"That's it! that's it!"

The parents were silent, and Mr. Westervelt, after a pause, continued in a more subdued voice:

"My words may sound fanciful, but of their truth I am firmly persuaded; we are near discoveries that will astound the world."

"By what path do you think they will be made?" asked Mrs. Dawson.

"Electricity, that subtle, mysterious agent of which as yet we know little. It is to be the motor of the future; it is to warm our houses in winter and cool them in summer; it is to cook our food, carry us across the con-

tinent and the ocean, and minister to our necessities and comforts in hundreds of ways of which we do not dream. *There*, Dorsey, is the field for you to explore."

"And, oh, how I shall love to do it!" replied the lad with a sigh of happiness.

Mr. Westervelt deemed it best to become more practical.

"If you cannot afford the expense of sending him to a special training school, I do not see that it will make much difference. He can investigate for himself; scientific works are continually published that make known all new discoveries; he can have the benefit of them; his talent will point out the path for him to follow, and if his life and health are spared, he will, to use a common expression, 'get there.'"

"Well," said the father, "it is hard to combat you, though I don't feel quite so hopeful as you. I am afraid I can't afford the expense of sending him for several years to New York, but he shall have every publication he wants and the help that can be given him otherwise."

"And that's all I want!" exclaimed Dorsey.

"You and mother have done all you can for me, and more than I deserve: I'll try to pay you by doing the best I can. I know it will take years of work to do what Mr. Westervelt has laid out, but I'll be mighty happy in trying. But," added the boy, almost shamefacedly, "I'd like to earn some money for father and mother, and enough for me to do what you spoke of, without being bothered over getting my bread and butter."

The teacher threw back his head and laughed.

"There's the American of it! It's what I might have expected, and I'm the last man to find fault with the practical view you take of the matter. I have had some experience myself in the patent business. Yes," he added, noting the looks of surprise, "I own two patents."

"I hope you did well with them," ventured Mrs. Dawson.

"As well as the majority; that is to say, I didn't make a penny. Perhaps one invention in a hundred pays the expense of getting a patent, the lowest cost of which is sixty-five dollars."

"But why did yours fail?"

"Because they were worthless. When a man thinks of a new contrivance he jumps to the conclusion that he has found a fortune, and his fear is that someone else will get ahead of him. He is uneasy until he receives his certificate from the Patent Office in Washington, when it doesn't take him long to learn that nobody will have his invention as a gift. To illustrate: My first patent was a rubber door-mat. As they are now made, a mat can be cleaned only by picking it up and banging it against the side of the porch or something, which frees it of the water and dust. Mine was raised in the middle, and its points and hollows were so arranged that it could be swept clean with a broom as it lay. The rise in the center caused the water to drain off of itself. I sent one of them to a large manufactory, which returned a favorable opinion and asked me to have a set of moulds made. They cost several hundred dollars. The new mat promised well, but of the number made not a single one was sold."

"Why not?"

"Every patent to be successful must meet three requirements: first of all, it must be better than the contrivance it is intended to supplant; second, it must meet a general want; and, third, it must cost less. My mat met the first two needs, but the rise in the center took more rubber, adding to the cost, and it was that which killed it. I won't refer to my second patent, except to say that it met the first and last need, but not the second.

"I needed the experience to learn that business, which, now that I have told you, has cost you nothing."

CHAPTER VIII.

A LATE CALL.

I HAVE often wondered whether there is any section in this favored land of ours that escapes annoyance from the pests known as tramps. There seems to be an army of them forever plodding across the country between the oceans, all the way from the Dominion of Canada to the Gulf. They live by theft or begging, are too lazy to work, scare women and children, and in the absence of the fathers often commit crimes for which they deserve severe punishment. The only method of relief appears to be by strict rules that compel them to work before they are given food and shelter, and it is a curious fact that in most places a false sympathy defeats such laws, as if honest toil were not the best medicine in the world for a rugged, healthy man.

While Mrs. Dawson was pained to refuse

food to anyone, her husband ordered that no man, unless his looks showed him to be weak and ill, should have anything to eat, until he had earned it by splitting some of the wood that Dorsey always kept on hand for such purposes. Sometimes a burly fellow would comply with this rule, but more often he turned sullenly about, and slouched out of the yard, muttering threats and leaving odd chalk marks outside the gate, as a warning to his brethren of what to expect at that inhospitable home.

One day a big tramp, who was kindly but firmly refused by Mrs. Dawson, grossly insulted her, and told her he would make her pay for her meanness. The fellow did not see the husband sitting near the door, who overheard his words, but he learned it a moment later when Mr. Dawson rushed out seized him by the collar, and kicked him off the porch and through the gate. The tramp made not the least resistance, and did not utter a word, until he joined his comrade waiting for him down the highway. The two stood for some minutes talking, now and then looking back at the house, and then dis-

appeared in the direction of the village of Titusville.

While crossing the bridge over the canal, they met Dorsey Dawson coming from Titusville.

"Say, younker," said the one who had received the rough treatment, "who lives in that house back there?"

"Mr. Jacob Dawson."

"What sort of a man is he?"

"One of the finest that ever lived; he's my father."

"He is, eh? Wal, then, I'll take it out of *your* hide."

He made a plunge at the boy, but the latter was too nimble for him, and, dodging to one side, sped up the road at a speed that it was idle for either of the vagrants to try to equal.

When Dorsey learned from his father what had taken place, he carried out a purpose that had been in his mind for several days. All the doors had the ordinary pattern of locks and the windows were fastened by the usual catches in the middle. As is well known, neither the locks nor the catches are

of any use against a determined housebreaker. Dorsey believed his contrivance would prove effective. He had doubled a thin sheet of steel, on one side of which were prongs, so that it could be shoved between the jamb and the door. Its elasticity caused it to push apart, and upon any pressure from the outside the prongs were driven deeper into the wood and the door was held more firmly. With one of these bits set at the upper part and another at the lower part of a door, it could not be opened from the outside without a pressure that would tear away much of the woodwork, and require more strength than most men possess.

His other invention was for the windows. A roughened steel wedge was shoved strongly into each side, when it became impossible to raise or lower the sash to the slightest extent. The contrivances could be easily taken away from the inside, but, unless the window was raised or lowered too much, could not be reached by anyone from without. That afternoon Dorsey carefully placed his new locks and fastenings on all the doors and windows, and it was well he did so.

Ever since Maggie was bitten by a dog when she was an infant, Mr. Dawson had refused to have any of the animals about the house. When Dorsey needed one with which to hunt, he borrowed it from a neighbor. Thus the home lacked one of the best safe-guards against tramps.

During warm weather, comfort required that all the windows of the sleeping rooms on the second story should be partly open. Dorsey fixed his invention on every one, including those in the hired men's apartments. The lower sash was raised enough to admit what cool air was needed, and the upper one was lowered a few inches, but no man was able to thrust his arm through from above or below far enough to reach and remove the catch.

Mr. Dawson laughed at what his son did, and the hired men joked over his fears. They had no dread of tramps, and slept through till daybreak without waking, but the youth was of a different mind. He carried his gun to his bedroom; and after the stillness of the house showed that the rest were asleep, he seated himself in a chair near

the head of his bed, meaning to stay awake until morning. The roof of the kitchen sloped from under his window to within eight or ten feet of the ground, and he was sure that if the tramps paid his home a visit and failed to force their way through any of the doors, they would try his windows, because it was so handy for them.

It is easy for a boy to make up his mind to keep awake throughout the hours he has been in the habit of spending in sleep, but he can never succeed unless he fights off the approach of slumber by the activity of his body. The sound of the waterfall at the rear of the house was as soothing as the lullaby of a mother to her infant. The full moon was shining on the roof outside, while the shadows of the trees only touched the eaves of the kitchen roof. It was not long before Dorsey's eyes began to grow heavy, his head nodded, and he was soon as soundly asleep as if lying in his own bed. He had leaned his gun in the corner within easy reach, but the belief that he would need it ere long did not hold him awake.

It is impossible to tell how long one has

slept, but the lad had been unconscious probably an hour, when, without any cause, so far as he could see, he awoke. He felt stiff from his cramped position in the chair, and it was a minute or two before he recalled why he was sitting there, instead of being in his bed. Then everything flashed upon him.

Sitting still, he listened. The murmur of the waterfall was as low and soft as ever, and the full moon had so shifted its position in the sky that its rays came through the window and fell upon the foot of the bed. He could hear no sounds breaking upon that of the falling water, and a glance at the door showed that it had not been disturbed. The fastenings were in place, though they might have been tried by the two tramps he had in mind.

Rising from his chair, Dorsey stepped to the nearest window and peeped out. The shifting of the moon threw more of the shadows of the trees on the roof, but the line of the eaves was plainly seen, and just above the rim he saw the head and shoulders of a man who, having placed something to serve as a support, was climbing upon the roof.

Carefully keeping himself hidden, the boy kept his eyes on the man. Perhaps his companion was helping from below, for the fellow came steadily upward, soon throwing one leg over the eaves, when he easily lifted his body upon the shingles. Then, on his hands and knees, he crept toward the window behind which Dorsey was closely watching him.

The lad stepped softly to one side, in the shadow, where he could not be seen. Reaching out to make sure his gun was in place, he let it remain in the corner, knowing he could seize it the moment it was necessary.

"I'll find out how my new lock works," was the thought of the youth, who was as cool as if in his little shop.

When the man had come nigh enough for the moon to reveal his face, Dorsey saw he was the one who had suffered at the hands, or rather foot, of his father, and who tried but failed to punish the youth on the bridge. Doubtless his companion was waiting somewhere near, though he was not in sight.

It took the tramp only a short time to reach the window. Raising his hands from

the shingles, he held one beside his frowsy face while he peered into the room in the effort to learn something of the interior. He was only partly successful, and Dorsey took care to keep out of his field of vision.

The next movement of the fellow was to try to raise the window. Since the sash was up a few inches it looked so easy that he placed only one hand under and put forth a moderate force. But it did not stir. Then he grasped it with both hands, and lifted so hard that he grunted, but with the same result. Even the oath he uttered gave no help.

Looking up, he saw that the upper sash was lowered a little way. No better chance could be asked, for standing upright, he gripped the cross-piece with both of his big hands, and brought his whole strength, which must have been a good deal, into play.

Standing thus, he drew downward, at first slowly, but with increasing power. The sash did not budge.

"His next move will tell," was the thought of the lad, a couple of feet away. "I'm afraid the thing won't stand it."

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A MASKED BATTERY.

Once, twice, three times the angry tramp yanked downward with all his might, but he might as well have tried to pull the house apart as to start the sash. He paused, mystified and enraged.

"What in thunder is the matter!" he growled. "I'll fetch it next time or bust the whole shebang!"

Before he could make the trial, the muzzle of a gun was thrust through the opening, and Dorsey, who suddenly appeared before him, said:

"Get out!"

The fellow stayed not on the order of his going, but went, skurrying down the roof, leaping from the eaves, and rushing away into the darkness.

CHAPTER IX.

SHARP WORK.

An investigation, made the following morning, proved that the tramps had tried all the lower doors and windows before making an effort to enter the room of Dorsey over the kitchen roof. The last attempt, of course, would not have been made, had they not failed at the other points.

"Why didn't you shoot the scamp?" asked one of the hired men, after listening to the story of the youth.

Dorsey was horrified.

"I wouldn't do such a such a thing for the world! He wouldn't hurt me."

"You don't know that; s'pose he'd got into your room?"

"But he didn't."

"The law would have upheld you."

"But I'd never have got over it."

"You are too chicken-hearted."

"Maybe I am, but I'm glad I didn't hurt the fellow."

"You did right," said the mother, patting the head of her son; "it is wicked to take human life, except to save your own or someone dear to you. Better that the bad men should have stolen everything we have than you should stain your soul with a crime, which is no less a crime because the law says it is not."

Doubtless the tramps would have been glad to set fire to the house had they dared, but it was too dangerous to themselves. They had really done no harm, and it was hoped that that was the last of them.

About noon an elderly neighbor, Elijah Collins, the richest and meanest farmer in that part of the country, stopped his team at Mr. Dawson's gate and called to him. Mr. Collins held mortgages on a dozen farms in that section, besides which Mr. Dawson owed him two thousand dollars for the land on which the brickyard stood. In addition to the legal interest, which was regularly demanded and paid, Mr. Dawson had been

compelled to give a big bonus for the favor. Since the mortgage would fall due at the close of the present year, and the mortgageor had no hope of paying it, he naturally wished to keep on good terms with Mr. Collins.

Mr. Dawson was about to sit down to dinner with his hired men, when he hurried out of the door to greet his neighbor, whose face and rapidly working jaws, for he chewed tobacco, showed him to be under some excitement.

"Good-day, Mr. Collins! Come in and join us at dinner."

"I don't want no dinner; things are comin' to a purty pass, aint they?"

"What do you mean?"

"Haven't you heard? My house was robbed last night."

"Is it possible? I am sorry to hear that. Have you any idea who did it?"

"Yes, I know well 'nough; it was a couple of blamed tramps that have been hanging round the farm for the last two or three days."

"Have you caught them?"

"Catched 'em? No; I only wish I *could*, consarn 'em!"

"What did they get?"

"'Most fifty dollars, from the bureau drawer in my room while I's asleep!" said the angry farmer, as if his loss meant everything he owned in the world. "What do you think of *that?*"

"It's a shame," replied Mr. Dawson, who, all the same, was unable to feel much sympathy for the stingy old fellow.

"Can't you pay that mortgage of mine a leetle ahead of time, Jacob? This loss is going to bother me a good deal; I'll allow you something on the interest."

"I wish I could, but really, Mr. Collins, I don't see any way of doing it. It will be hard work to pay it when it falls due in December."

The old man spat over the side of his wagon, closed his thin lips, and shook his head.

"I'll have to have it then, sartin; don't ask me to renew it."

Jacob Dawson knew what all this talk meant. The miser expected to renew the

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mortgage, as he could well afford to do, but he meant to make his debtor pay another big bonus for the accommodation.

"Well," said Mr. Dawson, with forced cheerfulness, "let that go for the present; your visitors, no doubt, were the ones that made a call here last night."

"You haint been robbed, too?"

"No; they couldn't get in."

"They didn't mind *my* locks, but busted 'em like so much wet paper."

"They would have done the same with me, if Dorsey hadn't gotten up some new contrivances that he put on all the doors and doors and windows."

"What was they?"

"I'll have him make some for you and take them up to your house."

"Have him do 't this afternoon, will you?"

"If he has time," replied the parent, hardly able to repress his resentment over the piggishness of the man.

"Have the time? What's he got to do? Why didn't he come over yesterday? Then I wouldn't 've been robbed. Wal, don't forget to send him this afternoon."

And without a word of thanks, Mr. Collins jerked the reins, clucked to the horses, and drove up the road.

"Dorsey, you may do as you please about going," said his father, after relating what had passed between him and his creditor. "I suppose it is our duty to do some deeds, even if we are not repaid with gratitude."

"I'll go," said the good-natured boy. "When I made those things for our house, I made a good many more than we need; I guess I've nearly enough for him. My! but he must feel poor after losing so much money."

It was about three o'clock when Dorsey Dawson turned into the long, shaded lane leading to the handsome home of Elijah Collins. He had a basket on one arm in which were the little articles, the product of his own ingenuity, that had saved his home from being robbed.

Mr. Collins had no children, he and his equally penurious and sour wife making up the family. He was looking for the boy, and was impatient over his delay.

"Why didn't you come sooner, eh?"

"Because I wasn't ready, and if that's the

way you're going to talk to me, I'll go home again," replied Dorsey, picking up his basket and turning about.

"Hold on! don't be so mighty peart; do you know your father owes me two thousand dollars?"

"I never heard it before, but I s'pose you've told everybody else. That hasn't anything to do with *me*. If you wish it, I'll put these locks and catches of mine on your windows, but you must treat me half decently."

"I've treated you well enough; how much are you going to charge?"

"I'll leave that to you," replied Dorsey, whose intention had been not to take anything, but he meant to have some fun out of the incident.

"Let me see what you've got there," said Mr. Collins, reaching his hand for the basket. Dorsey took out two patterns and showed how they worked.

"Humph! they aint good for nothin'."

"Very well; then I won't bother to put them in place. Good-afternoon."

"Hold on! You are the impudentest boy

I ever knowed; your father oughter whale you like blazes. Put 'em on for me, I say, and I'll give 'em a trial, though I haint no faith in such gimcracks."

Dorsey's resentment had turned to a feeling of amusement, and he set to work with the old man closely watching him, chewing tobacco harder than before and all the time grunting his disapproval. His wife appeared, and whined lest the things should scratch the door and windows, but her husband ordered her to "Shut up," and the work was soon finished.

Every door on the first floor, and all the windows on the first and second floors, were supplied, and it need not be said that it took a large number.

"I'm sorry I let you put 'em on," was the ungracious comment of the old man; "but being they're on, they may as well stay. Do you want any pay?"

"As you please about that. If you think they're good for nothing I'll take them off, and charge nothing; but if they stay, you may pay me what you think is right, as I told you at first."

Mr. Collins stood jingling some coins in his trousers pocket. It pained him to part with the most trifling sum. Dorsey calmly waited. Finally the man took out a number of silver pieces, turned them over several times, and then selected a quarter, which he handed to the boy, who took it with a smile, but without speaking.

"Where's your manners?" snapped the old gentleman. "Why don't you thank me for what I done?"

Looking fixedly at the coin, held in one palm, the lad thrust the other hand into his own pocket and drew out two dimes and four coppers, which he handed to Mr. Collins.

"What's that fur?"

"Your heart is too big for your pocket; that's your change; a penny is enough for me. Good-afternoon."

And before the old man could find words with which to express his feelings, the lad, shaking with mirth, was running down the lane to the highway. He was still laughing when he reached home and told of the incident. But neither his mother nor father saw any cause for mirth in the matter. They

were indignant that their son should have received such treatment.

"But as long as I feel a good deal better than *he* does, I don't see why you should complain," was the response of the lad, as he went whistling to his machine shop to give his thoughts to something else that had occurred to him.

The incident, trifling of itself, would have been forgotten but for a most unexpected sequel. Nearly three months had passed, and Mr. Dawson was more anxious than he was willing to admit over the mortgage that would soon fall due, though he managed to keep the matter from his family. It was late in the evening, the work for the season having ended on the brickyard, when he was seated in the sitting room, reading the village paper which Dorsey had brought home that afternoon. His wife was sewing, and the boy was busy with one of the scientific works that his father had bought for him, while Maggie had gone to bed long before.

Suddenly Mr. Dawson started in his chair with an exclamation of angry amazement.

"Well, there, if that doesn't beat anything

I ever knew!" he added with more excitement than he had shown for many a day.

Dorsey looked up from his book in astonishment, while the mother was no less interested.

"What has disturbed you, Jacob?"

"Disturbed me!" he replied. "Listen to *this*."

And he read from the newspaper:

"'We are pleased to note that among the patents just issued from Washington is one to our esteemed and highly respected citizen, Elijah Collins, Esq., who, amid his many duties as our leading agriculturist, finds time to exercise his mental skill in other directions. His patent is for an ingenious contrivance which can be applied to any door in place of the ordinary appliances now used, and which renders a house absolutely burglar proof. We suspect that Mr. Collins' experience some months ago with the knights of the jimmy was the inciting cause of this invention, which must prove of the highest benefit to the community at large. We observe that the patent has been assigned to Thomas F. Hagar, Esq., of New York City, who doubt-

less has paid a liberal sum for that which must prove very profitable to him. We congratulate him as well as Mr. Collins, and more than all the community which numbers among its citizens a gentleman of so much worth and public enterprise.'

"There!" fairly gasped Mr. Dawson, "what do you think of *that?*"

CHAPTER X.

SHARPER WORK.

WHAT *could* they think? Young Dorsey Dawson was the victim of one of the meanest acts that can be imagined. Mr. Collins had slyly taken out a patent upon an invention of the boy, without so much as speaking to him or offering to pay him a penny. He had, in fact, given him a single cent for the appliances which the youth placed on his doors and windows as a protection against burglars, after which he committed a swindle, for which there was not the slightest legal or moral excuse.

No wonder the father flung down his paper and paced the floor, filled with righteous wrath. The face of Dorsey flushed, and even his gentle-tempered mother was stirred more than was often the case.

"Was ever such injustice known?" she asked, ceasing her sewing and looking from

her son to her angry husband, as if she expected both to answer.

"I never dreamed of anything like that," said Dorsey. "There must be some way of making him pay for what he stole from me."

"There is, if I have to do it myself!" exclaimed the father, stopping short in his walk. "And I've got to pay him two thousand dollars within a few weeks, or give him a big bonus to renew the mortgage he holds on the brickyard. But he must settle with *me!*"

He seized his hat and strode toward the door, but his wife spoke.

"Jacob, what do you mean to do?" she asked with gentle earnestness.

"I mean to go and see him at once and warn him that he's got to treat Dorsey honestly, or I'll make him do so."

No wife understood her husband better than Mrs. Dawson. She knew of his quick temper, and foresaw painful results if he met Mr. Collins while in his present mood. Instead, too, of helping matters, he would be sure to make them worse.

"Now, Jacob, sit down again; let's talk

calmly over the matter. Your resentment is no greater than mine, but an angry man gives all the advantage to his opponent at the start. Let us go slow and be sure we make no mistakes."

He remained standing with his hat in one hand and the other upon the knob of the door, but when she smilingly led him away he did not resist, and resumed his seat, with his hat resting on the knee of the leg that was thrown across the other, as if he was willing to listen to her words, though uncertain about accepting her counsel.

"Nothing can be done to-night, Jacob. It is always wise to wait till next morning when your feelings are disturbed; your head will become clearer by that time."

"But I shall sleep better after giving that man a piece of my mind."

"And put him on his guard, so that he can defeat the means we intend to use to force him to do justice. The most important thing for us is to avoid any blunder at the beginning."

"And how are we going to do that?" asked her husband, who removed his hat from

his knee and fingered it on his lap. Dorsey walked to the table, picked up the paper from the floor, and began reading the item that had caused all this commotion, leaving his parents to agree upon their course of action.

"In the first place, I am sure there must be some way of righting the wrong. I know nothing of law, but I am sure it is founded on common sense, and the courts are formed to give justice to the people. Certainly it is easy to prove that Dorsey is the inventor of this contrivance, and that being done his claim to the patent is sure. Precisely *how* is to be done must be left to others. When the facts are laid before Lawyer Rockett of Titusville he will know what to do."

Mr. Dawson continued to finger and fumble his hat.

"It says that Mr. Collins has sold the patent to some person—what's his name, Dorsey?"

The boy, still reading over the article, replied:

"Thomas F. Hagar of New York City."

"It doesn't give his address?"

"No."

"It can be found without trouble," ventured the wife.

"But it is likely he has paid over the price of the patent, and *then* what is to be done?"

"Mr. Collins can be made to repay what does not belong to him, when he learns it is the only way to escape the penalty."

Mr. Dawson tossed his hat to the settee on the other side of the room, and clasped his hands around one knee. The tempest in his breast had gone down. He looked admiringly at the little woman in her rocking chair.

"Lucy, I haven't half as much sense as you; you've saved me from trouble more than once, for you never allow your temper to get the best of you. I'll wait till morning, but what shall then be done?"

It is wonderful how fast a bright-witted woman can think.

"It seemed to me a minute ago that the best thing was to see Mr. Rockett and take his advice, but I don't think so now."

"How's that?"

"Go to New York and find Mr. Hagar;

no one is more interested than he. If he learns that his title to the patent isn't good, he will know what to do. He must see that Mr. Collins has no claim to the invention; and if I'm not mistaken, he will be quite ready to bring him to terms."

"He *must* do it!" exclaimed the husband, flaring up again. "If he doesn't, I'll fight the matter up to the Supreme Court of the United States. I'll never rest till this wrong is righted."

"Keep cool; it *can* be and it *will* be righted."

The conversation lasted until a late hour. Dorsey read the item in the paper aloud, and he and his parents were able to repeat every word of it. The result of the long talk was the agreement that the best course for Mr. Dawson to follow was to see Mr. Hagar at the earliest possible moment. It might be that he had not yet paid over the price agreed upon, in which event little difficulty was to be feared. If the money had been paid, he might try to scare off Mr. Dawson, who would then call in the help of a good lawyer to protect his interests, for Dorsey

being a minor, his father would have to act for him. With this decision in the mind of each, they finally went to a slumber that was broken and brought little refreshment to any member of the family, except Maggie, who knew nothing of the flurry that had entered the household.

The morning train for Trenton passed Titusville a few minutes before nine, which was after the arrival of the other train from the South. Mr. Dawson put on his best suit of clothing, ate his breakfast, talked a while with the members of his family, then kissed all good-by and started to walk to the station, about three-fourths of a mile distant. It was a clear, crisp autumn morning, and the exercise was pleasant. He hoped to be back that night, but it seemed likely that he would have to spend another day in the metropolis.

A brief walk along the road took him to the bridge spanning the canal, from which point the highway led along the river bank, with the Delaware on his right and the railway and canal on the left. There was plenty of space, and the road was shaded

with maples, oaks, and chestnuts for most of its extent.

Just across the canal he met a neighbor jogging along with his two-horse team. The men nodded and made the usual remark about the weather. A glance at his watch showed Mr. Dawson that plenty of time was left, and he strolled forward, breathing the clear, cool air with the keen enjoyment felt by him when a boy.

A little way along the slightly winding road, and he saw a well-dressed man coming from the village. The crooked path caused some of the trees partly to hide him, but a little further and he came into plainer view.

"It is Mr. Rockett out for an airing," was the thought of Mr. Dawson; "he shows his good sense. But it *isn't* Rockett!" he added, with mild surprise, as the two drew near each other. "He's a stranger."

It would be a rare thing for two persons to meet in the country without saluting each other. While several paces away Mr. Dawson courteously gave the path, made a half-military salute, and said:

"Good-morning, a fine day!"

"It is indeed," replied the other with equal heartiness.

They were in the act of passing, when the stranger stopped short.

"I beg your pardon, but can you direct me to the home of Mr. Elijah Collins?"

"Keep up the road on the other side of the canal to the first turn; follow that until you reach the third house on the right. You can't miss it, for a long lane leads to it from the main road."

"Thank you. I didn't expect to reach Titusville until the afternoon train, when Mr. Collins was to meet me; but I finished my business in Philadelphia sooner than I expected, and the day is so pleasant that walking is pleasanter than riding."

"Begging your pardon, may I ask if your name is Thomas F. Hagar?"

"It is, sir," replied the gentleman, his face showing the surprise he felt at being known to a person whom he had never met before.

"That's lucky, for I was on my way to New York to see you."

"To see me! In what way can I serve you? May I inquire your name?"

"Jacob Dawson. I live a short way up the road. It is I who have the means of serving you, though some of the good must come to me. I saw in the paper that you had bought a patent from Mr. Collins. Is such the fact?"

"It is."

"Have you paid him?"

The expression on the bearded face of Mr. Hagar showed that he was not altogether pleased with this abrupt query, noting which Mr. Dawson hastened to say:

"My question sounds impertinent, but you will respect my motive when you know the whole truth."

"I am waiting to hear it."

"I must first know whether you have paid Mr. Collins for his patent. I don't ask how much the sum is, but merely wish to know if the bargain has been completed."

"I am on my way to complete it. I have the papers with me and a check for the amount."

"Mr. Hagar, you're a mighty lucky man."

"I don't quite understand you."

"Mr. Collins is no more the owner of that patent than the man in the moon."

"That is a strange thing to say, when the patent has been issued by the government in his name and it is now in his possession; there can be no question as to *that*."

"It is not the first time that patents have been obtained through fraud, nor will it be the first time that a swindler has been punished. I am prepared to prove to the satisfaction of any court and jury that Mr. Collins stole that invention."

Mr. Hagar could not fail to be deeply interested.

"You astonish me, but you will excuse me for saying that I must have proof of the truth of your words. You have made serious charges against a neighbor."

"Not more serious than I am ready to prove. If you prefer to pay Mr. Collins the price agreed upon between you, don't let me hinder you; go ahead. I have given you the directions to his home, and you tell me you are on your way to close the bargain. Some people are fond of litigation, and if you prefer to buy a lawsuit with the certainty of losing your end of it, don't let me delay you."

"I wish to know more of this. With your permission I will accompany you to your home, where we can talk the matter over."

"I shall be glad to have you do so," replied Mr. Dawson, as they turned about and walked up the road.

CHAPTER XI.

STILL SHARPER WORK.

It was certainly fortunate that Mr. Dawson should have met in the manner described the gentleman whom he expected to search for in New York. Had not the men met on the highway, the agreement would have been made between Mr. Hagar and Mr. Collins; and though the end must have been on the side of right, yet much expense and delay would have been certain.

When Mr. Hagar and Mr. Dawson reached the home of the latter, no one was in the house except Mrs. Dawson, who was glad indeed to make the acquaintance of the visitor. Maggie had gone to visit one of her playmates, and Dorsey was at work in his machine shop at the rear of the dwelling. His mother raised the window and called to him. He came running up the steps, his handsome face aglow with health, and his curly locks flying about his ears. He doffed

his hat, and paused with natural confusion upon seeing the stranger seated near a window.

"Mr. Hagar, allow me to present you my son Dorsey, the inventor of the contrivance which Elijah Collins has had patented in his own name."

The man rose to his feet and took the the hand of the youth.

"It gives me great pleasure to know you. I have heard a portion of the story, which your father told me on our way here, and I am anxious to know the particulars."

Encouraged by his parents and the kind interest of the visitor, who helped by a few questions, Dorsey was not long in making clear all that has been given the reader, so far as it related to the patent. The boy gave his story modestly, and no one listening could have failed to see that he was telling the truth. When he told how he had returned all the money handed to him by Mr. Collins, with the exception of a single penny, he apologized for the act.

"It was a rude thing to do, but I didn't stop to think."

Mr. Hagar laughed heartily.

"I see no cause for censuring you; I only wonder that he did not insist upon having the last penny back. How is it," he asked, turning to the father, "that you didn't have this contrivance patented?"

"It never occurred to us that it was worth patenting."

"It is those little things that, as a rule, are the most valuable and that bring the quickest returns. I have been a dealer in patents for several years and have bought and sold a good many. In looking over the latest issues, I was struck with the ingenuity of this appliance for doors (the window fastening is not involved, as that has not been patented), and I wrote to Mr. Collins, offering him a fair price for it. He accepted my offer, and it took but slight correspondence when I thought best to visit him, prepared, as I informed you, to close the business."

"Suppose you had done so?" inquired Mrs. Dawson.

"Then it would have remained for you to prove his dishonesty and to establish the fact that your son is entitled to the patent.

While I believe you must have succeeded, it would have taken much time and cost you quite a sum of money."

"And how is it now?"

"It rests to a great extent with Mr Collins. Probably he will insist that he was the inventor. He may swear that he used the contrivance before it was thought of by Dorsey, and he may have taken means to fortify that claim. The prospect of getting a goodly sum of money will lead him to hold on as long as he sees a chance of success. But," added Mr. Hagar with a smile, "I have a plan which I think will bring him to terms."

The three listened, but he did not explain. Instead, he said:

"I will say that I am satisfied that this patent is yours, and I promise you to do all in my power to help you to obtain your rights. I have had experience in this sort of business and don't think I shall make a mistake. Do you suppose," he added, "that you can induce Mr. Collins to call here?"

"I think so," replied Mr. Dawson.

"Dorsey, please go to his home and ask him to drop in, if he can conveniently do so."

The boy was on his feet, hat in hand.

"Suppose, father, he asks what you want of him?"

"Tell him I have important business to see him about, something in which he is interested."

"He will say that if that is so, it is *your* place to call on *him*."

"Probably he will. You will give him no particulars, but say I am waiting for him. I think, though he may grumble a good deal, he will come."

Dorsey went up the road on a trot which did not end until he sounded the big knocker on the door of the penurious old farmer, who answered it in person.

"Wal, what do you want?" he asked gruffly.

"Mr. Collins, father wishes you to call at our house as soon as you can."

"Umph! what does he want of me?"

"He told me to say that it is something that will interest you."

"Then why don't he come to see *me?*

He's a younger man than me and his house aint any further from mine than mine is from his'n. Does he expect me to wait on him?"

"I think it is best you should come," remarked Dorsey, assuming as important an air as he could.

"I s'pose it's 'bout that mortgage which is almost due. He needn't think I'm going to renew it, unless he pays me for it."

It was singular that Mr. Collins did not think of the patent; but it may be he was not aware that the item had been published in the *Bugle of Liberty*, or he thought his position so hedged around that it could not be attacked.

"Shall I tell him you'll be there?"

"Umph! you needn't tell him nothin'. I don't know whether I'll go or not; I've got some things to look arter. I'll see whether I've time."

The bright lad knew this was another form of assent, and he hurried home with the news. During his absence Mr. Hagar had been provided with pen, ink, and paper, and had done considerable writing on the

dining-room table. At the same time he kept up a pleasant conversation with his host and hostess, who were pleased with him and got his promise to spend most of the day with them. Truth to tell, he had become interested in Dorsey, and wished to see him at work in his shop, and to do what he could to encourage the youth in the peculiar field for which nature intended him.

"He'll soon be here," was the comment of Mr. Dawson, after the boy had given an account of his call.

"You don't think he suspects our purpose!" inquired the visitor.

"It is not likely, for he cannot know you are here. He may think it has something to do with the patent."

"I have never met Mr. Collins, all our business having been done by correspondence. I am generally pretty careful, and thought it best to see him in person before passing the money to him."

Mr. Collins did not wait long after the departure of his youthful caller. Not doubting that his father wished to make an arrangement for the renewal of the mortgage

soon to fall due, the old gentleman took the paper from his desk and placed it in an inner pocket of his coat, though of course he might as well have left the document at home.

"He paid me a bonus of only fifty dollars when I give him the mortgage three years ago. It wa'n't enough, and if he expects me to accommodate him agin, he's got to plank down a hundred. I won't take not a cent less," and the old man closed his thin lips and shook his head as he strode down the lane and turned into the highway. "That young scamp meant to slur me when he said my heart was too big for my pocket, but he spoke the gospil truth jes' the same."

There was a flutter when the creaking of the gate was heard and the tall, slightly stooping figure of Mr. Collins was seen coming up the graveled walk. Dorsey Dawson had taken his seat in one corner of the room, intending to look on and listen, for it would not be in good taste for him to speak unless addressed. The mother had resumed her sewing and rocking-chair, with the same purpose in mind, while her husband had agreed to leave the talking to Mr. Hagar

and their visitor, though the wife was not without misgiving as to Jacob's quick temper. She meant to keep a close watch over him and act the part of a "balance wheel."

"Umph! Howdy do?" grunted Mr. Collins, as he shoved open the door without knocking. "Seems to me, Jacob, you orter come to see me if you wanted to fix up that ere mortgage agin, which I don't mean to do——"

At this point the visitor observed the well-dressed gentleman sitting at the table and calmly looking at him. The caller paused, and, without removing his hat or sitting down, stared at him.

"I believe I don't know you, sir."

"Mr. Collins," said Mr. Dawson, rising, "allow me to introduce you to Mr. Hagar of New York."

"Happy to meet you, Mr. Collins," remarked that gentleman, rising and bowing, but not offering his hand.

The seamed face of the old man flushed, his jaws became motionless, the under one dropping, and he stared in silent amazement. Then he muttered in a husky whisper:

"Mr. Hagar—Thomas F. Hagar!"

"Yes. I reached Titusville sooner than I expected. Sit down, Mr. Collins; we have some business together, you know."

The old gentleman remained standing, as if dazed. With a feeling of pity, Mrs. Dawson moved a chair near him, and taking his arm gently pulled him backward. He dropped into the seat with a thump, resumed chewing, and looked at Mr. Hagar, but made no attempt to speak.

All these signs were favorable, and Mr. Hagar pressed matters.

"Draw your chair up to the table, Mr. Collins. I have some papers here which it is necessary for you to sign."

When the request had been repeated, the visitor complied.

"Before signing that, it is best you should read it over."

Mr. Collins, with fumbling fingers, drew his leathern spectacle case from his upper vest pocket and fixed the glasses astride his thin nose. The paper trembled in his hand as he began reading the writing. It did not take him long to discover that the document was

a legal transfer of his interest in Patent No. ——, the specification of which was given, to Jacob Dawson, "his heirs and assigns," the consideration being one dollar, the receipt of which was acknowledged.

He continued studying the paper for some minutes, while no one in the room moved or spoke, but every eye was fixed upon the hard, wrinkled countenance and the nervous, busy jaws. Suddenly the old man flung the paper down on the table.

"I won't sign that!"

"I think you will, Mr. Collins; it is better to sign some things than go to jail," calmly remarked Mr. Hagar, looking him steadily in the eye.

"Who's going to jail? What are you talkin' 'bout?"

"You know well enough. Do as you choose. Sign that right off, or leave it alone. If it isn't signed within the next three minutes," and he looked up at the clock on the mantel, "I shall apply for a warrant for your arrest. Take your choice."

The cadaverous jaws worked harder than ever. Mr. Collins studied the paper for two-

thirds of the time given him, and then picked up the pen.

"Where do you want me to sign?"

"On that line at the bottom. I will witness your signature."

Slowly and laboriously the old man traced his autograph in the place pointed out. Then, with a certain grim heroism, he asked:

"Is that all?"

"Not quite. Here is a certified check for twenty-five hundred dollars, payable to your order. Please indorse it over to Jacob Dawson."

Without a word of protest, he took the valuable bit of paper, scanned it, and then did as requested. With the same grim expression, he asked:

"Anything more?"

"That's all. You may now go home, Mr. Collins. You have had a happy issue out of this, and you may consider yourself lucky—more lucky, indeed, than you deserve. Please forward me the patent certificate itself when you reach home, to my New York address. Good-day, sir."

Without any acknowledgment of the

salutation, Mr. Collins rose from his chair, slammed the door behind him, strode down the graveled walk, through the gate, and up the road to his home.

When he was beyond hearing, Mr. Hagar and Mr. Dawson shook with laughter, though Mrs. Dawson and Dorsey felt too much pity for the miser to join in the mirth. There was a certain pleasure in thus triumphing over meanness, but the victory was so complete that it brought something of sympathy for the victim.

"I hardly expected my bluff to work so well," remarked Mr. Hagar, "but when a guilty conscience gets a hold it makes a man a coward. Now, Mr. Dawson, you heard the amount named by me. If you, acting for your son, are willing to accept the twenty-five hundred dollars for all rights in the patent, I shall be glad to complete the deal with you."

Pleased enough were all three of the family to accept the offer, and everything was done in legal form. Mr. Collins had not only failed in his dishonest attempt, but had lost the greater part of a hundred dollars,

which it cost him to secure the patent to which he had not the slightest claim. A few weeks later Mr. Dawson paid the only mortgage on his little place (as Dorsey insisted should be done; and happy indeed was he thus to help his parents), and when everything was over, he had several hundred dollars remaining as a result of the transaction.

CHAPTER XII.

CONCERNING PATENTS.

MR. HAGAR spent the remainder of the day at the Dawson home, and won the good opinion of all by the interest he showed in the inventive ability of Dorsey. While he himself was lacking in that special faculty, he was fond of machinery and original ideas, was quick to note discoveries and improvements, and gave the youth many helpful suggestions in his work. He praised his mechanical skill as shown in the construction of the water-wheel, and the transfer of its power which was made to serve so many purposes. He studied the numerous specimens of the boy's handicraft and reminded him that some of the most profitable inventions were toys and playthings.

"For instance," said he, as the two were standing in the little workshop; "you have

seen that small wooden painted ball, to which a rubber string is fastened?"

Dorsey by way of reply picked up one of the toys, which he had made after seeing a model in a store.

"Be careful, young man," said Mr. Hagar with a smile, "you are infringing upon another's patent."

"But I haven't sold any of them."

"That makes no difference. I don't think, however, that you are in danger of prosecution for your infringement. Now, there could not well be a simpler plaything than that which is known as the 'return ball'; and yet it made the inventor independently rich."

The boy opened his eyes.

"It is a fact, but I hope you will be more fortunate than was that poor fellow."

"I should think he was very fortunate."

"Yes, in the respect named; but one day when walking through a by-street in New York, some person, whose identity was never discovered, made him the target of an air gun. It was probably done in sport, but the man was killed by the shot, fired from an

upper window. You have noticed that on a sheet of postage stamps, the little colored squares are separated by lines of perforations. The man who thought that out won a fortune. It is the little things which when invented are so simple that everyone wonders why everyone hadn't thought of them before, that are the money-getters."

"That is what I've heard Mr. Westervelt, my teacher, say."

"He told you the truth. Your contrivance for fastening doors is cheap and, above all, is efficient. When it becomes known, it will be popular."

"I've often thought, Mr. Hagar, that if I knew what inventions are needed it would be a big help to me."

"Your thought is natural, but there is little in it. Some patent firms send out long lists of the inventions that are wanted by the public, but the trouble is that most of them have already been invented. The best plan is to keep your eyes open and wait for an idea to strike you. It will come without coaxing on your part. It is a grand truth about this patent business that some poor

country boy following the plow may think up something that will make him wealthy. Riches can no more buy the talent with which God has blessed you than they can take it away from you. Your brain will expand, and the further you penetrate the field of investigation the broader will be your vision of the harvest that awaits gathering. To-morrow I am going to Washington to attend to some business, and I shall try to persuade your father to let you go with me. I want to take you through the Patent Office, that you may see some of the wonderful products of other geniuses besides yourself."

Dorsey's eyes sparkled. No greater treat could be given him, and that evening when the gentleman made his request of the parents, they readily granted it, only insisting that Dorsey should pay his own expenses.

"Which he can well afford to do out of the profits of his first patent," added the father with a smile.

Mr. Hagar begged that the boy might go with him as his guest, but he was compelled to accept the terms of his parents.

"There is enough to see in Washington to

keep one busy for weeks, with the wonders of the Smithsonian Institution and the different government buildings, but since I can spend only one day there, we will give it to the Patent Office, with which I am familiar, and reserve the others for a visit when we shall have more leisure. We shall reach Washington to-morrow afternoon ; I will attend to my business in the evening, and give the next day to inspecting the models of inventions, which will use up all the time at our disposal."

Mr. Hagar possessed such a fund of information regarding patents that many questions were asked him by Dorsey and his parents.

"I wish to give my young friend some practical information," said the gentleman, after the conversation had continued a while. "It is true, as he has been told by his teacher, that a large majority of the inventions are worthless and never pay the cost of obtaining them. A man sometimes thinks of a novelty, and jumps to the conclusion that he has found a gold mine. His first fear, as Mr. Westervelt said, is that someone will think of the same thing and obtain a patent ahead of

him. Without waiting to test his invention, to consult with his friends, and to take time to think whether he can improve it, he writes to some firm which advertises to secure patents. He is told that his invention is patentable, and learns that it will cost him forty-five dollars to have the agent make the drawings, draw up the specifications (no model is now required), and pay the first government fee. The advice of the agent to have a preliminary search made, in order to ascertain whether the same idea has not been patented by someone else, is good, for it may save useless expense. When the way is clear, his agent goes ahead, but with no certainty of securing the patent. At the end of six weeks or a couple of months his agent notifies him whether his claim has been rejected or allowed."

"Suppose it has been rejected?" asked Mrs. Dawson.

"The agent will still renew his attempt to secure the patent, modifying his claim perhaps, with a view generally of making it as broad as possible. This is done without extra expense to the applicant. The chances

are that he will succeed with his application, especially if he has employed a good agent who understands his business, but he may fail in the end after all."

"What becomes of the money he has expended?"

"He can have the patriotic consolation of knowing that a part of it has gone to help his government, where it will remain. It costs fifteen dollars to file an application, in addition to the fees of his attorney or agent. If a patent is issued to the applicant he must pay a final fee to the government of twenty dollars. If the application is not allowed, he is saved that expense. There are plenty of intelligent and honest agents who will advise and direct wisely. If a person conceives an idea in which he has faith, he has only to describe it, inclose a postage stamp to some reputable agent, and await his reply. If he pronounces against the design, it should be abandoned. If he writes encouragingly, the applicant should turn it over in his mind a long while before going further. I am sorry to say that there are too many agents who will advise a person to press his claim,

their purpose being to obtain the fee which is in it for themselves."

"You do not advise anyone to try to obtain a patent without help?"

"No; for he will make mistakes and involve himself in expense and lose his application, because of his unfamiliarity with the steps to be followed. Let him find out a good, responsible agent and intrust his interests to him. The *Patent-Office Gazette* publishes the name and post-office address of every person to whom a patent is granted. Each one thus published will receive a flood of letters and pamphlets from all over the country, forwarded by parties who scent fees to which they have not the least right."

"What fees are they?" asked Dorsey.

"These firms have several methods by which they entrap the unwary. The most successful is the statement that the new invention has been submitted to the firm's board of examiners, who unanimously pronounce it valuable, and the belief is expressed that it can be readily sold for several thousand dollars. All that is necessary is for the owner of the patent to send ten, twenty, or

more dollars to the firm to pay the 'preliminary expenses' for advertising, postage, and so on. He forwards the fee, signs the beautifully printed contract sent to him, and then begins to figure out what he will do with the ten or fifteen thousand dollars, more or less, when it arrives. But it doesn't arrive."

"Why not?"

"I might reply, because it is never sent. Some of the firms to whom he forwards the money simply take it, and do not put forth the least attempt to sell his patent. I could name more than one who have grown wealthy through this method of swindling. Some of them will write encouraging letters and urge the owner to send an additional fee for the purpose of advertising more extensively, when not a penny has been expended in that direction. Many of these people keep typewritten letters, waiting to have the name of the inventor and his invention inserted, with the statement, as I just said, that the design has been examined by their 'board,' who have unanimously agreed that it is a valuable contrivance, when the truth is the firm has no

board at all, but consists simply of one or two unprincipled men who take this means of robbing poor persons. Taking the list in the *Gazette*, they forward a similar communication to each name."

"Have they any other methods?"

"There is another recourse. A firm with a high-sounding name urges the inventor to take out patents in foreign countries, England, France, Germany, Italy, Spain, Russia, and so on, assuring him that his invention is so valuable that he ought by all means to protect it at once in those foreign countries, the expense of which amounts to several hundred dollars."

"What is there wrong in *that?*"

"The wrong is this: after a person has taken out a patent in this country, any person whatever can secure a patent upon the same invention in foreign countries. The one, therefore, which is obtained by the inventor is worth nothing at all to him, since it affords him not the least protection. The assurance with which a firm will urge and insist that their foreign patents thus obtained are valuable is amazing."

"But there must be some method of securing a foreign patent," suggested Mr. Dawson.

"Nothing is simpler. When he is informed that his application for a patent has been allowed, he has only to let it lie dormant in the Patent Office until his foreign applications have been secured. He can then have his American patent issued, and he is on firm footing in all the countries."

"All which proves the need of an intelligent and honest guide in securing patents," said Mr. Dawson. "I remember some years ago seeing a patent that had been granted to a young man for a 'Fly-Scarer.' It was a frightful-looking image that was kept wabbling and fluttering over a dining-room table by means of a crank which a man turned in one corner, the idea being that it would scare all the flies out of the dining room, though I think the guests would be the first to flee."

"It is a mystery to me why thousands of patents are granted. It must be on the score of novelty, for that is all they possess. I know of a patent given for an illuminated cat. It was made of metal, with a light

inside; and, with blazing eyes and mouth, was intended to strike terror to all the rats and mice in a house. A man in the West applied for a patent on a 'cannon plow.'"

"What was that?" asked Dorsey.

"The beam of the plow was loaded with grape and canister shot, so that in case of attack by Indians, the plowman could whirl the implement around and open his battery on them. There was another for artificial tails for horses, to improve their looks; a fan to be attached to hunting dogs' tails, to enable them the more readily to turn sharp corners; and an ingenious incubator for hens. This was so arranged that when a hen laid an egg, it would disappear. When she got ready to cackle her delight, and glanced back at where she expected to see the egg but saw nothing, she would become convinced that a mistake had been made, and would lay another egg, keeping it up indefinitely to the profit of her owner, and doubtless to her own mystification."

"Are you familiar, Mr. Hagar, with the history of the patent department?" inquired Mr. Dawson.

"Only in a general way. The first patent law was passed April 10, 1790, under which the Secretary of State, the Secretary of War, and the Attorney-General composed the court that decided the question of the issuance of a patent."

"Who was the first inventor in this country?"

"To answer that question we must go back to colonial times, when Joseph Jencks lived at Lynn, Mass. At that time patents granted from the sovereign power of England for land, water, and other privileges were not uncommon. Such a patent was granted to Jencks for 'an application of water power to mills.' It was he who introduced into the Massachusetts colony the idea of patenting inventions, and to gain protection and use for his ideas, seems to have been his reason for coming to this country. His most valuable invention was the grass scythe, which he patented in 1652. The improvement over the old English scythe, with its short, thick blade, like a bush-scythe, consisted in lengthening the blade, making it thinner, and welding a square bar on the back and

strengthening it. This scythe, practically unchanged, is used to-day in Europe and America. The patent was withheld from Jencks for nine years, as it was thought to be too valuable to be monopolized. The first American patent was granted July 10, 1790, to Samuel Hopkins for a new method of making pot- and pearl-ashes. Two more patents were taken out during that year."

"Did Mr. Hopkins do much with his invention?" asked Dorsey.

"Of that I have no knowledge. The old law remained in force until February 19, 1793, when several changes were made in it."

"How many patents were granted under the first law?" asked Mr. Dawson.

"Fifty-seven. The second law lasted until 1836, by which time nearly ten thousand patents had been issued. It was the law of 1836 that ushered in the real era of American invention. Previous to that year a patent, no matter how excellent, lost much of its value because, as in the early days in England, the granting of a patent was not actual proof of its novelty. The owner was compelled to make out and maintain this claim in the

courts. The law of 1836 removed this almost fatal defect, and a patent now acquires a commercial value the hour it is issued, as I showed by the purchase of the invention made by my young friend there. If anyone infringes upon a patent, he can be prosecuted and damages recovered, its worth being as distinctive and indisputable as that of a house, a farm, a horse, or a brickyard."

"The government must make a large profit from patents."

"It does; it is the only department that pays expenses. Last year its earnings were nearly a quarter of a million of dollars above all expenses, so that if the majority of inventors make no money from their ideas, it will be admitted that the government is doing quite well."

CHAPTER XIII.

A VISIT TO THE PATENT OFFICE.

ONE of the pleasantest memories in the life of Dorsey Dawson is the visit which he made to the Patent Office in Washington, in the company of his friend Mr. Hagar. The lad had never seen the capital of his country, and the railway ride on that cool, sunshiny day was of itself a treat. As they glided southward from Philadelphia across the picturesque country, through Baltimore, and finally into the "city of magnificent distances," the feast to his eyes was a continuous delight. His companion was not only intelligent, but familiar with everything they saw, and cheerfully answered the numberless questions of the youth. Dorsey gained a wealth of information such as never could have been gained from the reading of books or from the descriptions of those who had made the visit before him.

The afternoon was well along when they left the train in the fine station, and walked to the Ebbitt House, where they registered for the night. After dinner Mr. Hagar went out to attend to the business that had taken him thither, while Dorsey spent a part of the evening in strolling through the city, wondering at the well paved and arranged streets, the splendid public buildings, the beautiful private residences, and the crowds that seemed to be everywhere. He would have enjoyed himself for hours, but taking care not to lose his bearings, he was at the hotel at the time agreed upon, where Mr. Hagar soon joined him, with word that he had finished the business that he had in hand, and that at nine o'clock on the morrow they would make their visit to the Patent Office, the great point of attraction.

Accustomed to early rising at home, Dorsey came down the broad stairs, not caring to use the elevator, and took another stroll down Pennsylvania Avenue, while waiting for his friend, who appeared in time to join him at a late breakfast, after which the two walked from the hotel to the massive Doric structure,

wherein may be seen hundreds and thousands of the specimens of the wonderful inventive genius of Americans. As the two, with scores of others, walked up the broad steps and entered the building, Mr. Hagar kept up an interesting flow of information, to which the lad listened with deep interest, while using his eyes to their utmost.

"Most of the employees here," said the gentleman, "have been in service many years, and are experts in their many duties. The Commissioner rules all, and has an Assistant Commissioner, three Examiners-in-Chief, thirty-two Principal Examiners, and seven Chiefs of Division, with nearly six hundred clerks and assistants. We will first visit the model room."

To do this the two went to the third story of the building, where Dorsey was amazed at what he saw. Huge glass cases were arranged in balconies, three tiers high, and crowded with models of all sizes and patterns, and relating to inventions so numerous that it would take a volume to catalogue them. Dorsey passed in front of these exhibits, his eyes wide open and his heart filled with

astonishment, for he had never dreamed of anything of the kind. Many were tiny, and so simple that a glance told him their nature, while others were large, complex, and beyond his comprehension, without aid from someone familiar with them.

"Until lately," said Mr. Hagar, "it was necessary to send a model of an invention to the Patent Office, in order to obtain a patent, but that is no longer required, a drawing being all that is needed. This drawing must be in line, that is, without any shading, since the shading is apt to obscure some of the points."

"How many models are here?" asked Dorsey, as his eyes roamed over the bewildering array.

"About three hundred thousand. There was a fire in the Patent Office in September, 1877, which destroyed a large number that have never been replaced, but there are enough left, as you see, to occupy your mind for days."

"That's the trouble," replied Dorsey; "there are so many that I'm confused. When I stop to look at one, another catches my eye,

and I hurry to that. Then I leave it for others, until my brain is in a whirl."

"It is useless to look at the models in that haphazard fashion, and we will pick out only the most interesting. Here, for instance, are the models in gunnery; suppose we glance over them."

Mr. Hagar explained the different weapons, which included the Hotchkiss machine gun, and thence downward to the toy pistol. Then came the seemingly endless varieties of the steam engine, embracing apparently everything that human ingenuity can devise down to a simple wood-screw. There were models of steamships, windmills, threshing machines, printing presses, cooking stoves, life-saving boats, corn-planters, corn-shellers, cradles, tombstones, fishhooks, dolls, sausage machines, fans, glove-fasteners, bottle-stoppers, folding-beds, dosing-bottles, jumping-jacks, and so on, until it would appear that nothing was left to be invented.

"There can be no end to this," remarked Mr. Hagar, in reply to a remark by Dorsey; "the inventions increase in number every year, until no one dare try to guess the limit."

"A good many of them look alike."

"Some are really repetitions; the government grants the patent to the different applicants, who are often obliged to fight it out among themselves. Now, you wouldn't think there is much room for variations in so simple a thing as a lantern, and yet, as I happen to know, ninety-seven patents have been granted for improvements in their make; there are nearly four hundred patents for wash-boilers, and not quite a hundred for the simple wood-screw. Four hundred and twenty-seven patents have been issued for tobacco pipes and mouth-pieces, and five hundred and thirty-nine for bottle-stoppers."

(It should be remembered that the visit of Mr. Hagar and Dorsey Dawson to the Patent Office was made a short time before the Columbian Exposition in Chicago, since which date the statistics given by the gentleman have been greatly increased. His figures, therefore, are the more striking.)

"One of the most important inventions," added Mr. Hagar, "is the sewing machine and its attachments, for which the patents issued number three thousand five hundred and

seventy. Leaving out heavy ordnance, torpedo, and machine guns, there are more than three thousand patents for firearms. In a short time the patent car-couplers will number five thousand, for they are now close to that figure, and the knitting- and weaving-machines are close behind them."

"There are a great many farmers' tools," said Dorsey, whose eyes wandered from the array to the other models, too far off to be identified; "but I don't wonder at that."

"Covering all the patents for the different kinds of agricultural implements and appliances, the number is more than thirty thousand, of which upward of seven thousand apply to plows alone."

"From what you and Mr. Westervelt said, a good many of these patents never paid their cost."

"That is the fact, but others have made enormous fortunes. I could not tell you the number of millionaires who gained their wealth through the sewing machine, yet Elias Howe, the pioneer, underwent the pangs of starvation in London while working on his invention, and had to borrow the few shillings

needed to bury the body of his wife; but he kept at work, and won in the end. It was the same with the many telegraph patents, and yet Professor Morse for a time lived on one meal a day, and he wouldn't have been able to get that, if one of his students, whom he was teaching to draw, hadn't loaned him a pittance to buy food.

"Many a valuable invention is the result of a fortunate accident. I believe such was the fact with the Goodyear rubber patents. The first composition was a simple mixture of rubber and sulphur. On that foundation hundreds of fortunes have been made. Many thousands of dollars have been spent in experimenting for a substitute of this simple composition, but none has been found."

"What others have paid?"

"I can name only a few examples. I am sure that if you had known the need of sleeping accommodations in making long railway journeys, you would have thought out something as good as that which Mr. Pullman patented, but he got the start of you and has made millions of dollars. As for the electric and telephone patents, no one can guess the

riches that they have brought their inventors and owners, and yet, as you have heard, it is the thousands of little inventions whose total returns exceed the few vastly profitable ones."

While the two moved along the long corridors, viewing with increasing amazement on the part of the youth the wilderness of models, Mr. Hagar led the conversation to the names of the men who had made the greatest inventions.

"You know many of them," he said; "for the story of Benjamin Franklin and his kite has been told times without number. It has been said of him that he drew the lightning from the clouds, and Morse harnessed it. Franklin made several useful inventions, among them the lightning rod and a stove which saved most of the heat that before that went to waste.

"Robert Fulton made the first practical steamboat, though Fitch and others ran boats by steam years before his time. Elias Howe, as I have told you, was the inventor of the sewing machine, and Cyrus H. McCormick of the great harvesting machine, which has

given such an impulse to the westward sweep of civilization."

"What was the first great invention in this country, Mr. Hagar?"

"The cotton-gin, by Eli Whitney, a Yankee school-teacher in Savannah. He worked under great disadvantages, being compelled to make his own tools and even to draw his own wire. The news of what he was doing got abroad, and some lawless people broke into his shop and stole his machine before he could secure a patent. He, however, formed a partnership with a friend in 1793, and went to Connecticut to make cotton-gins. His patent was so valuable that it was continually infringed upon, and more than one State encouraged this violation of the law and defeated the renewal of his patent. South Carolina made him a present of $50,000, but it and more was spent in defending his rights. Despite these discouragements, his inventive mind kept busy, and he patented the plan of making each part of fire-arms separately, so that one piece will fit any gun. The government gave him a contract in 1798, and he became a very wealthy man."

"Who is the greatest inventor of to-day?"

"Thomas A. Edison, by a long way. He has already secured more than six hundred patents, and will never cease his work so long as life and health are spared to him. Many of his discoveries, as you know, border on the marvelous, and it may be said that we have become so accustomed to expect wonders from that brain that we are hardly surprised at any announcement from him."

"All these inventors are not Americans?"

"By no means. Ericsson, who made the *Monitor*, which conquered the *Merrimac* and revolutionized the navies of the world (not to mention other important inventions), was a Swede, and Alexander Graham Bell, who patented the telephone, is a Scotchman. To me, although you may think different, the Hoe printing machine is the most wonderful invention of them all. Who could believe, had he not seen it, that a machine could be put together that will print and fold seventy-five thousand copies of a complete eight-page paper in an hour? The result of Hoe's experiments and improvements was the rotary press into which are fed ribbons of

paper five miles long, at the rate of eight hundred feet a minute. Hoe, like Robert Bruce, inventor of the type-casting machine, was a native of New York State."

"What other American inventors have done well?"

"Christopher Latham Sholes, one of the early inventors of the typewriter, was a Pennsylvanian; Thaddeus Fairbanks, whose scales are used all over the world, was a native of Massachusetts; George M. Pullman is a New Yorker; Howe was a New Englander, and Samuel Colt, inventor of the revolver, was a native of Connecticut, who, when a runaway sailor-boy in 1829, whittled out a model of the little weapon used everywhere. The time-lock for banks, and the original tumbler or Yale lock, were invented by Linus Yale, Jr., whose father was also an inventor and locksmith. Joseph Francis, inventor of the life-saving boat used by the government, was voted by Congress the largest and finest gold medal ever given by the government to an individual. The presentation was made by President Harrison at the White House. The intrinsic worth of

the medal is six thousand dollars. Francis gave it to the National Museum, where it may be seen with the first life car, which saved two hundred and one lives from a ship wrecked on the New Jersey coast in 1847. It is impressive to think of a patent for saving human life, when so many hundred inventions are intended to destroy our fellow creatures. Then there is Elisha Gray, yet living, who, beginning life as a farmer's boy and blacksmith's apprentice, became interested in electricity, and is credited with the invention of many wonderful and useful appliances, such as the automatic relay, the type-writing telegraph, the annunciator, the telantograph, which reproduces at the far end of the wire the manuscript or drawing made at the hither end, and so on. Many also attribute to him the first invention of the speaking telephone—a great revolutionizer of business and social life."

"I was interested in the elevators used in so many of the buildings."

"Their pioneer inventor was Elisha G. Otis, who made his first machine some forty years ago. Mr. Otis began life as a farmer, but

his genius for invention soon showed itself and he produced a number of valuable inventions. His first safety elevator was shown at the World's Fair, in the Crystal Palace, New York. The mechanism is covered by more than two hundred different patents."

Back and forth strolled Mr. Hagar and Dorsey Dawson, the questions of the latter showing his unflagging interest. The gentleman seemed equally pleased to give what information he could, and after a lunch they returned to the building, where the intellectual feast continued until it was necessary to leave the Patent Office, which was closed until the morrow.

CHAPTER XIV.

REACHING OUT.

THE visit of Dorsey to the Patent Office in Washington marked an epoch in his life. It was like taking a deep draught from the fountain of knowledge. His views broadened, and he saw with his vision further along the vista of the life opening before him. The parting words of Mr. Hagar left an impression that always remained.

"Men are too apt to believe that their chances of success or of doing good lie in fields beyond their reach. One thinks of what he could do if he were in the situation of someone else, forgetting that the opportunities are always around us and at our command.

"Now, the making of bricks is the business of your father, and you have been trained to the same work. He naturally is content to

follow in the steps of those before him, as his neighbors in the same line are doing. But, with your inventive faculty, you should not be satisfied with traveling in the old rut. Why can't you improve upon those methods? What is to prevent your manufacturing not only more but better bricks? You wait for your patrons to come to you; why not go to them, with word that you can sell them better and cheaper bricks than can be got anywhere else? You have a fine water-power that is running to waste, so far as the brickyard is concerned; the supply of clay will last for years; every need is at your command. Now, show what you can do."

It was these words which acted like a spur to the youth and led him to do more hard thinking than he had done in all his life. He felt the truth of what his friend said, and saw that to succeed he must fix his mental energies, not upon some work that was in the distance, but upon that which lay at his feet. It was as if he were standing on the edge of a harvest field, whose wheat was yellow with ripeness and waiting for him to garner it.

There was one branch of his father's busi-

ness to which no reference has been made: that was the manufacture of pressed bricks.

The machine for doing this was simple. It was made mainly of iron and always stood under a shed, where the driving rain could not reach it, and when in operation had the services of a man and a boy, with perhaps a second man to wheel the bricks up to the side of the press. The latter weighed several hundred pounds, and was worked by a single man.

In the first place, the green bricks were fashioned in a special mould, of greater depth than the ordinary one. That was to provide for the yield under pressure. The man at the press pushed over a long lever, which brought the bottom of the mould up to a level with the top of the machine; then the green brick, of about the toughness of putty, was placed on the bottom of the iron mould, which was level with the upper part of the machine. The lever was drawn up and the green brick sank into the cavity, until the top was even with the metal wall around it. Then, with the other hand, the man drew up the heavy iron cap-piece, which inclosed the top of the

brick, that was now incased on every side by an unyielding wall. Pressing the lever still further over, the bottom of the mould was forced with great power against the lower part of the brick. Every other portion being immovable, it was thus pressed into a beautiful, symmetrical cube. The cap was slipped off the top, and the swing of the lever in the reverse direction forced up the pressed brick until the bottom was once more on a level with the top of the machine.

This completed the work of the operator. The waiting boy held a shingle in each hand, fashioned slightly longer and broader than the brick, and with a thumb-hole in the curved top. Placing one of these on either side of the brick, he lifted it free of the machine and carefully bore it a short distance, where with the same care he placed it on a board. The second brick was laid on top of the first, and so on until the pile numbered eight or ten. Then a second pile was laid a few inches to one side, the process going on until the day's work was finished. When the bricks had gained proper hardness, they were placed on their sides and left until

fully dry. While this work was going on, the edges were carefully brushed with the hand to free them from the slight roughness. When ready for the kiln, they were laid with a peculiar arrangement near the center, where the heat would be neither too strong nor too weak. These bricks, when no ill luck attended the burning of the kiln, were of a beautiful cherry-red, perfectly smooth and symmetrical, and worth ten or twelve dollars a thousand. The best ordinary bricks were sold for seven or eight dollars, and the salmon-colored for five or five and a half dollars per thousand.

It will be noted, therefore, that the pressed bricks averaged nearly double the price of the common bricks, but it will also be noted that the process of making them was slow, and almost wholly by hand. Five or six hundred was a good day's work, and, owing to the care necessary in burning them, a kiln with a quarter of a million of bricks would have perhaps only ten thousand pressed ones near its heart. Their high price confined their use mainly to the fronts of houses, whose other walls were laid with ordinary

bricks. All of my readers are familiar with this fact, and have noticed the contrast between the front and sides of such dwellings.

Now why could not these pressed bricks be made at a cost so moderate that they could be sold at reduced prices? This was the first problem which Dorsey Dawson tackled.

It has been shown that in the days to which I refer the making of bricks could be carried on only in fair weather. A half-hour's violent rain would beat the soft ones into mud, without form or substance. Not only that, but those made on the previous day, and as yet not hard enough to be gathered into haiks, were likely to be spoiled by the same storm. Thus a brief tempest often destroyed two days' work. Even when the bricks had been "haiked" and capped with boards, shaped like inverted troughs, a slanting storm worked great injury, by washing away and ridging the ends. Suppose the storm lasted for several days. Not a brick could be made during that time nor afterward until the yard was hardened by the sun. The men, who were hired by the month, stretched themselves under the shed and smoked their pipes, or

perhaps did such light work as the foreman could find for them. In the course of the summer the loss from bad weather is often serious.

This was the second problem which met Dorsey Dawson, but its solution was so simple that I am sure it has been thought out by my young readers. When we go out in a rain, we shield ourselves with our umbrellas. The same principle would make a brickyard laugh at a storm. The plan, therefore, was to place sheds over the entire yard, a plan which it may be said is now the universal practice.

But the bright sunshine is a necessity. Therefore, the roof of the shed must be so arranged that the boards composing it can be made to overlap one another when it is raining, or be turned up edgewise in fair weather, so as to permit the sun to shine between. Since the sun is continually shifting its position in the heavens, the thin lines of shadow made by the thickness of the boards are of little account.

By means of a lever connected with all the boards extending the length of the yard, one

swing would fix them at the angle required. The same action repeated along the end of the sheds would close the entire yard against the rain or expose it to the sun's rays.

"The plan is simple," said Mr. Dawson, in talking it over one evening with Dorsey, "and has occurred to me more than once. The only question is the expense. It will take a good deal of lumber, and since the boards are to be movable, it must be made with more care than the ordinary shed."

"That is so easy that Maggie can figure it out. You can tell me what the average loss a week or a month is from bad weather. Our working season lasts six months."

"But not much more than five is spent in making bricks, since a good deal of preparation is necessary."

Dorsey took his pencil and paper and jotted down the figures given by the father, whose memory was clear enough to make his judgment very nearly correct.

Then followed an estimate of the cost of covering the yard with sheds. Here the data were not so sure, but they were near enough for practical purposes. The result

was the proof that the system described would result in a profit of from eight hundred to a thousand dollars each season.

"You surprise me," said his father, after the figuring had been proven correct. "I have never made an estimate, but believe it would take several years to make up the cost of shedding the yard. It is so late in the season that it isn't worth while to make the change now."

"No, but by beginning next spring, as soon as we can, we shall have a good season's work."

"*Deo volente*, it shall be done," said Mr. Dawson emphatically.

"I don't suppose there is any way of fixing things so the work could be kept up through the winter?"

The parent shook his head.

"You ought to know better than to ask that question. The freezing of the clay, the discomfort of the work, and the impossibility of drying the bricks would compel us to inclose the whole area like a house and spend thousands of dollars for heating alone. No; for some time to come there will not be

enough profit in the brick business to warrant a venture of that nature."

"Well, father, that settles one question: there's another."

"What is that?"

"How to make better and cheaper bricks than anybody else."

Father and son were alone, Maggie and her mother having retired some time before.

"That *is* an important question," remarked the elder thoughtfully. "There can be no question that we make as good as any in New Jersey or elsewhere."

"But Mr. Hagar says we ought to make *better* bricks than anyone else."

"But when they are as good as they can be, how can they be any better?"

"There, father, lies the whole thing in a nutshell. I don't see how the regular bricks can be bettered, but suppose you could sell the pressed bricks for six dollars a thousand, less than you now charge for the red bricks —don't you think you would build up a large sale?"

"No doubt of it—and lose money on every brick sold."

"Of course, so long as they are made as we make them now. But you have pressed a good many bricks, and I have carried them off for you. Five hundred, or a few more, make a good day's work, but almost everything is done by hand. There's a big waste of time, and there must be some way of doing the work cheaper and better."

"I wish there was, but I can't think of any."

"Nor can I just now, but maybe I can after a while."

"It will be a great feat, my son, if you succeed," said the father, looking kindly at his big boy; "but I have no faith that you will ever find a practical way."

"Maybe I won't, but I mean to keep trying, and not give up until sure the thing can't be done. I've got one idea fixed in my mind."

"What is that?"

"That it must be done through water power. There needn't be any shifting about of the gangs, as with the other bricks. You can place the press, or whatever contrivance we use, near the dam, and keep it there all the time."

"Yes; we'll run the shed down to the

bank, where the machine will be within a few yards of the wheel; but, my boy, if you attempt to work that press of ours at four or five times its present speed, you will spoil all the bricks."

Dorsey threw back his head and laughed.

"Of course, if we used the machine as you think of using it, but the new one will have to be a very different one."

"Well, we have talked and thought enough for to-night."

They retired; but we all know how a subject upon which we have been deeply thinking through the day often keeps the brain active at night. Dorsey dreamed of pressed bricks tumbling out of a hopper faster then he could count them, and he saw all sorts of machines grinning at him from the ceiling and corners of the room. I do not doubt that many of my young friends have had the experience of working in vain the entire evening over a problem, and going to sleep with the whole thing muddled and with little hope of ever being able to solve it. When the eyes were opened in the morning, lo! everything was clear.

While it was not just like this with Dorsey Dawson, yet the morning brought a good deal of light. He saw the first steps to be taken. To increase the production of pressed bricks he must have more than the single mould then employed; the pressure necessary to force them into form must be even and adjusted as nicely as in the printing press, but such work is very simple for machinery.

It took much outlay of strength for a man by means of a lever to press the putty-like clay into form. To compress a half-dozen would be beyond his power; consequently it would have to be done by machinery. Then, too, if that were used it would not be necessary to have the clay as soft as now, since much greater pressure was at command. There remained the task of handling the bricks after they had been put into form.

One need was always before the youth. He did not wish to make unnecessary the employment of any one of their hands. They had come regularly to the yard, spring after spring, and stayed until frost ended the work in the autumn. There were the kindest of re-

lations between them and their employer. Had it flashed upon Dorsey that he could build a machine that would render useless the aid of half the men, and bring a fortune to his father, he would not have proposed it, nor would his father have accepted it if he had done so.

When it seemed to Mr. Dawson that his son was studying too hard, he made him give his attention to something else. At the request, too, of his mother, he turned to his lathe, or frolicked with Maggie, or, taking his gun, started on a hunt in the woods. Sometimes he went alone, but more often with Mr. Westervelt, who was always glad of his company. The instructor did not think it his duty to "improve" every occasion by trying to set forth the lessons found in the most trifling incidents. The two went in for fun and nothing else, and were bound to have it.

"I remember," said the teacher one day, as they sat resting on the top rail of a fence, "that one of the best teachers of my youth was always able to extract an 'important lesson' from the most trivial occurrence. A

horse walking across a bridge, a bird flying through the air, a boy asleep under a tree, a rabbit bounding through the brush—all and similar had their lesson for us children. Now, that nature is always teaching lessons, many of the most impressive character, cannot be denied, but we spoil their effect by forever sermonizing over them. It is my opinion——"

At that instant the topmost rail on which they were sitting snapped in the middle as if it were a pipe-stem, and despite the activity of both, they went over backward, each turning a complete somersault. Dorsey lay on the ground laughing at himself and his companion.

"What is the lesson from *this?*" called the youth.

"That the elephant is wise when he tests a bridge before trusting himself upon it. The next time we roost on a top rail we'll make sure there isn't a big knot in the middle of it waiting to play us a low-down trick. I am surprised, Dorsey, at your stupidity in doing such a thing as this."

"Why should you be surprised, when you remember the teaching I have had?"

"It is not by words alone that we teach."

"You have just shown that."

"If my example was faulty you should not have followed it."

"I didn't; I kept right alongside of you. In this business we were partners, and neither led."

"Well, I guess the less said about it the better. I shall depend upon you, Dorsey, not to mention this to any of our friends."

"And I shall count upon you to be mum with any friends of mine you run against."

And what did these two do? Dorsey Dawson told the whole occurrence as soon as he reached home that evening, and suggested that it would be a good thing for Maggie and his father and mother to help spread the news. They all did so, as chance presented, while the boy himself let no opportunity slip to describe the funny way in which Mr. Westervelt went over with his feet sprawled apart and his head jammed into the leaves and earth.

This perhaps would have been unfair, but it happened that the teacher was engaged just as industriously in the same business.

"Yes," said Maggie, with wide-open eyes, "what do you s'pose he did? To-day just before school closed he said he must tell the school a funny story, and then he told about going out a-hunting with you, and how you sat down on the upper rail of a fence, and it broke in two when you wasn't thinking and you flopped over backward, looking as if you had put the toes of your feet in your mouth—just as if you could do such a thing! —and started to roll home by turning over backward like a cart-wheel. He made it all appear so funny that the girls and boys almost fell off their seats laughing; and, Dorsey, I couldn't help laughing myself, though I tried hard not to—wasn't it awful?"

"It's just what I knew he meant to do," said the brother; "and he's got a big advantage over me when he tells it to so many at once."

CHAPTER XV.

SOME VALUABLE KNOWLEDGE.

DORSEY DAWSON was sure he had settled one important question—that of roofing over the brickyard, so as to allow work in all kinds of weather.

"It has all been figured out," he said one evening to Mr. Westervelt, who was making his usual call upon the young man and his parents.

"I shall be interested to know the particulars," replied the teacher.

Dorsey made the explanation, with which the reader is already familiar, the instructor and Mr. Dawson listening closely, though of course the whole thing was an old story to the latter.

"How simple!" remarked the parent. "I had thought of the plan, but it seemed so costly that I took it for granted it would not

pay, without stopping to figure it out as Dorsey has done."

Mr. Westervelt took the paper on which the young man had made his figures and drawings. He did not speak, but, holding it in front of him, spent several minutes in study. Then, to the astonishment of the other two, he quietly remarked :

"It looks like a good scheme, but it won't pay."

"Won't pay !" exclaimed Dorsey, "why—it's *sure* to pay."

"Perhaps I should have said, it won't work. Now think a moment. Your arrangement is for the opening and closing of one whole side of the roof of a shed a hundred or more feet long. There are to be several such sheds, so as to bring all the yard under cover. It will be a tremendous job to move that lever, but the real difficulty is that the boards will become so warped and twisted under the action of the sun and rain that when the lever is worked the roof will leak in hundreds of places. Indeed, it will be like an umbrella with no end of rents in the cloth. The amount of water that finds its

way through will prevent the men from working and destroy a large number of bricks."

Here was a view of the matter that had occurred to neither father nor son. They became thoughtful, and finally asked their visitor for his counsel.

"It is rather hard to give that," he replied. "I suppose the warping, which is sure to cause much trouble, might be overcome by making the roof more elaborate, and by bolting and securing the boards, but that would be too expensive. Now, it has occurred to me several times, when watching work on the brickyard, that the hardest part should be done by machinery. I suppose the most laborious task is that of bearing off the bricks, while the man who operates the machine in front perspires in a way that leaves no doubt of what *he* has to do. It seems strange that the one who directs a machine should have to labor as hard as the machine itself."

"I can testify to that," said Mr. Dawson with a smile, "for I have made millions of bricks by means of the machine, and it is the hardest kind of labor."

"I shall have to tackle this problem again," said Dorsey resolutely.

"On that point I offer a suggestion," remarked the teacher. "One of the most successful business men in this country has given it out as the rule by which he got wealth and still preserved his buoyant health, that he never did anything himself which he could make someone else do. Thus, being at the head of a large establishment, he has hundreds of men in his employ, in different capacities, from the common laborer up to his head manager or superintendent. Each of these has his appointed task, and he is made to do it. The proprietor cannot escape a certain amount of brain-work, but he does not assume to take on his shoulders the burdens of others. They must do their part well or give way to those who will. There are men in the situation of this gentleman who think it necessary to go mousing into the darkest corners of the cellar, or to climb through the skylight, hunting for trifling defects. Perhaps they save a few dollars by so doing, but it is at the cost of fret, worry, and work for which there is no pay. The

true course is to do as Napoleon did: tell your generals what you wish them to do, and leave them alone to do it."

Father and son were impressed with these remarks, but neither was able to see how they bore upon the work in hand. Suspecting their thoughts, Mr. Westervelt continued:

"Now, you are figuring upon problems that engaged other minds years ago. Many of them have been wholly or partially solved. Why not reap the benefit of their work, and then add to it if you can?"

"That's good advice," said Mr. Dawson heartily; "it's like beginning halfway up the hill instead of at the bottom."

"True; many improvements have been made in modern brickmaking; you are doing the work just as it has been done for the last half century and longer; others have progressed; find out how; do as they do, or think out something better."

"And that can be done by visiting one of the modern brickyards. Dorsey, the idea is excellent; you are at liberty to follow it when you choose."

"There are several on the outskirts of

Trenton. I have seen them at work when I rode by, but noticed nothing different from our methods."

"Probably there is nothing. I think the best place for you to visit is Haverstraw on the Hudson. There are a large number of yards there, and the place has long been noted for its bricks, which are sold all over the Union."

"Your advice couldn't be better, Mr. Dawson," said the instructor. "Not being specially interested in brickmaking, I have never visited the yards, but I have seen how extensive they are, as I went past on a steamer or railway, and I know their reputation. Let Dorsey take a day off and spend it among those yards with his eyes wide open; whether he gathers much knowledge or not, he will learn enough to save him from a number of costly mistakes."

The working season on the Titusville yard had closed, for autumn was fully come and the keen frost had nipped the chestnut burrs and sent down the nuts in fragrant showers. Dorsey Dawson, after many talks with his parent and former teacher, had decided upon

his future course, which was to follow a special line of studies in natural science at college. He could make a start whenever he chose, but it was agreed that it would be best to wait until the following autumn, before entering upon the tempting path which led to the fascinating fields before him.

One reason for this delay was that it would give him and his father time to test the improvements they had in mind for the brickyard. The sale of the son's patent had proven a blessed windfall indeed. The mortgage had been lifted, and they were free from the clutches of the miserly Elijah Collins; but to introduce the changes Mr. Dorsey and his son had in view would cost considerable. Although everything promised well, each felt a vague fear of disaster, which would throw them back and compel them to have recourse again to the old-fashioned method of making bricks.

"There's one thing sure," said Dorsey, in one of his talks with Mr. Westervelt, "there'll be no college for me, if it is going to cramp father and mother at home. They have

worked too hard and done too much for me to burden them any more."

"That is right; you can keep up your studies at home, and when you need a little help, I'll give you what I can. If you live, you will be in good shape for college next autumn; if the improvements you have in mind turn out as you expect, your parents will be well able to send you there. If loss, instead of profit, results, you want to put your shoulder to the wheel, instead of climbing into the wagon and letting them push you along. That's right, and it is just what I should have expected of you. I think I have said to you that when a man makes an invention he is always filled with a big idea of its value and generally fails to see its faults. You may get up a contrivance which you and I are certain will work perfectly, but when tried a fatal defect may spoil everything. So it is wise to hope for the best while being prepared for the worst."

If any one of my readers has ever succeeded in thinking out an invention he will not forget certain phases of the process which at times were of a tantalizing nature.

That for which you are groping often dangles like ripe fruit before your eyes. You reach out, sure of grasping it, when it is whisked away at the moment your fingers are closing around it. This snatching at the prize goes on for a long while, until the minute comes when you make a quick move and hold it.

It was much the same with Dorsey Dawson. He had settled into the belief that the improvements in the manufacture of ordinary rough bricks would be so simplified after his visit to Haverstraw that all that was necessary was to adopt the best features he saw. He therefore gave his thoughts to a cheaper and more rapid method of making pressed bricks.

A hint has been given of the first steps necessary. The motive power was to be furnished by the water, and the machinery must do all the work possible under the guidance of the human brain. That much, it may be said, was self-evident from the beginning. Several times the youth thought he had solved the problem, but, recalling the advice of Mr. Hagar and of Mr. Westervelt, he

looked for defects in his design, and, unfortunately, did not fail to find them.

Such was his mental state over the invention on which he was pondering when he boarded the cars for New York, with the purpose of visiting some of the brickyards at Haverstraw on the Hudson. The month of October was well advanced, but he knew the yards were in operation until November, and sometimes well into that month, so that he was sure of learning all he desired.

Entering the cars of the West Shore road at Weehawken, on a clear, bright day in that most delightful of all seasons, "Indian summer," Dorsey, after less than an hour's ride through the romantic scenery of the "Rhine of America," was landed at the famous brick-making town of Haverstraw while it was yet comparatively early in the day.

"I wonder," he mused, giving way to a quaint fancy, "whether this name is given because of the old proverb saying that you can't make bricks without straw, when we never use straw at all nowadays."

He strolled through several of the most modern yards, looking keenly about him, and

asking many questions. Foremen, workmen, and boys courteously gave him all the information they could. He watched the machines in operation, and, with the knowledge he already had, it did not take him long to become familiar with the improved processes.

The yard to which he gave the most attention had four moulding-machines all worked by means of a powerful steam-engine, through a shaft running along the four, and from which the power was transferred by belting. Unless pressed for time, two moulding machines were operated daily, and two rested, the product of the latter being handled while the others were making bricks.

Instead of filling a pit behind the machine with clay which was allowed to soak over night, and which had thin layers of the siftings of coal scattered through it, it was brought up to the machine in carts as fast as needed, and ground by the hopper, whose motor was the steam engine. The material shoveled into the hopper, by the man who gave the business his whole attention, consisted of loam, clay, and coal screenings, mixed in proper proportions. His duty was to keep

the hopper supplied, to moisten it as needed with water, and, as far as he could, prevent stones from getting into the hopper. These at times have wrought serious mischief. Not only have they broken the machinery itself, but have burst through the front and caused loss of life.

The bricks were pressed into the groups of six moulds, which were smoothed off by a man, waiting on the alert with a species of ruler. Then, instead of having the heavy moulds borne off as Dorsey was accustomed to seeing it done, they were deftly flirted over, so that the six bricks were placed upon a thin shelving or board of the proper length. A number of these boards, with their bricks, were laid upon a truck waiting at hand, while the moulds were slipped into a revolving cylinder, which "sanded" them, under the supervision of a boy, who slipped them into the side of the machine to be refilled, pressed, and thrust out from the front as before.

The radical change that struck Dorsey was that the moulds were all kept near the machine, instead of being carried down the yard by the off-bearers. This was certainly an im-

provement, but, more important than all, was the true solution of the problem he had been studying so long as to the best method of protecting the bricks against rain.

Nearly a dozen of the shelves, each holding the six bricks dumped from the moulds in front of the machine, were placed upon the waiting truck, which a man wheeled down a plank walk to the lower end of the yard, where he deposited the slides upon a shelf, the series of shelves being eleven in height on both sides of the aisle and all covered by a secure roof, which needed to be only a few feet in width. In case of storm, the long narrow space over which the trucks were wheeled was readily sheltered by the broad boards that ordinarily were shoved aside at the top. It took but a short time to place these in position, when the entire yard was under cover.

By this arrangement there was space between all of the bricks to permit the circulation of air, the thinned sunlight reached them, and the drying process was rapid. When this was sufficient, men passed along the aisle, and turned the bricks up on their

sides. Then, becoming more hardened, they were wheeled under the shed near the kiln and placed in haiks, where, upon being fully dried, they were next wheeled to the kiln and handed or tossed, two at a time, to the man who placed them in position ready for burning.

Wood costs so much at Haverstraw that coal is used in the kilns, which are prepared in the old-fashioned way, by being surrounded by a wall of bricks, a portion of which is permanent. The temporary walls are smeared over with "daubing," which is a preparation of mortar, or rather mud, and is intended to keep the air from the kiln while in process of burning, which occupies about four days. It takes ten men and boys to operate a machine, four or five men being occupied in wheeling the trucks and depositing the bricks upon the shelves. A day's work produces from forty-five to fifty thousand bricks.

CHAPTER XVI.

AN INTERESTING MEETING.

It was early in the afternoon that Dorsey Dawson arrived at the Weehawken Ferry and crossed on the boat to Forty-Second Street. He rode in the street-car to Broadway, and, finding he had time to take the long walk down that great thoroughfare to Cortlandt Street, concluded to do so. His purpose was to reach home that evening, and by taking the five-o'clock train he would arrive at Trenton in time to go home by the last train north on the Belvidere Division.

His father had suggested that he spend the night in New York and devote the next day to sight-seeing, for there is enough in the metropolis of our country to keep one interested for days and weeks. Dorsey at first was inclined to act upon the permission, but he became conscious of a curious weakness, which he would have been loath to confess to

anyone. It seemed to him, now that he knew he was more than half a hundred miles from home, that it was never so dear to him. The remembrance of bright, sweet-faced Maggie, his patient, loving Christian mother, and his sturdy, manly father, caused something in the nature of homesickness and made him more anxious to see them than he would have thought possible.

"It seems to me as if I had been away for weeks instead of a few hours. I know they would miss me to-night, but no more than I should miss them——"

Somebody gave him a slap on the shoulder, and the startled Dorsey turned his head, wondering what acquaintance it could be.

A spruce, well-dressed young man, with clean-shaven face, large eyes and nose, beamed upon him.

"Why, how are you, Robinson?" he demanded, with a grin that disclosed the gold filling in a number of his teeth, and reaching out his hand in a hearty fashion; "how are all the folks up in Newburgh?"

"Whom do you take me for?" asked Dorsey, quick to recover himself.

"Why, my old friend Robinson, of course. Let me see—it is almost two years since we had such a good time up at Newburgh, boating, fishing, and playing golf. How are your father and mother and your sisters?"

"My gracious, young fellow; won't you give me a chance to speak?"

"Of course, of course," laughed the other, as if it was a fine joke, as he displayed still more gold filling in his teeth; "but I'm glad to see you; you must come with me and have a drink."

"My name is not Robinson, and I was never in Newburgh."

The stranger instantly became grave. Leaning forward, he peered into the face of Dorsey.

"Well, now, isn't that an awkward mistake? I was never so sure of anything in my life as that you were my dear friend Frank Robinson of Newburgh, but I see now, when I come to look closer, that I was mistaken. You couldn't resemble each other more if you were twins. I really beg your pardon; you are——?"

"Call me Westervelt from Trenton, come to New York to have a good time."

"My dear Westervelt, you will pardon me; I'm deuced sorry."

"No harm done. Good-day, sir," replied Dorsey, who followed Broadway around Union Square, and was nearing Tenth Street, when he noticed another young man amid the endless lines of pedestrians coming toward him. What drew Dorsey's attention to him was the fact that he was looking fixedly at him, and grinning more expansively as he approached.

He too was well dressed, with a cane under his arm, his left hand covered and grasping the dangling glove that had been withdrawn from the other hand. His suit was a smart brown business one, there was a tiny red rose in his button-hole, and his derby and necktie were faultless.

"Well, now, that's what I call luck," said the stranger, who sported a shadowy mustache and showed a set of fine teeth, guiltless of visible filling. His thin face seemed to ooze oil and send out sunshine as he stopped in front of Dorsey, and, thrusting out his hand, asked:

"How are you, Westervelt, and how are all our old friends in Trenton?"

Dorsey had given the name of his teacher in a spirit of mischief, and, as he accepted the hand of the stranger, he asked with well-assumed surprise:

"Why, how did you know my name is Westervelt? Who are you?"

"Why, my old boy," said the other, shaking with pleasurable laughter; "have you forgot your old friend Fred Cutting, who met you last summer in Trenton and went out boating on the Delaware with you?"

"It seems hard for me to place you," replied Dorsey, scanning the countenance before him in a puzzled way.

"Why, Westervelt, your memory is beginning to totter—I hope not from old age," and he paused a moment to laugh at his own witticism. "You must know my uncle, the president of the First National Bank."

"Are you the feller that went out with us on a picnic to Duck Island, when we had Kimpton, Harbour, and Hazen in the party, and Dick Hazen fell overboard and would have drowned if you hadn't jumped into the

river with all your nice clothes on and pulled him out? Say, you aint that feller, be you?"

"I'm the chap, sure! I knew you would remember me—but say, that was nothing; you would have done the same thing if I hadn't been a little quicker and got ahead of you. I knew you'd remember me, Frank—I believe that's your front name."

"It's just as much a part of my name as Westervelt is. Isn't it funny that we should meet each other among such crowds of folks?"

"Oh, I don't know. I run across many of my acquaintances, and am always glad to do the honors. I never forget my old friends from Trenton; I love that town and all the people in it. How long do you expect to be in the city, Frank?"

"To-day is Wednesday," replied Dorsey, as if figuring it out. "It won't do for me to be away from home longer than Saturday."

"I wish you could spend a week with me, but you'll have enough time to see a good deal of the town."

In the most natural manner Mr. Cutting had faced about while they were talking, and the two began sauntering down Broadway, like a couple of friends met after a long separation. As if without any purpose in view, Mr. Cutting turned into a side street, taking Dorsey with him and talking fast all the time.

"Do you think a hundred dollars is enough to give me a good time in New York?" timidly asked Dorsey.

"A hundred dollars! Why, a hundred cents is more than you need. Do you s'pose I'm going to let you spend a cent, after that bully time I had with you in Trenton? Not much. When you get back home, ask Kimpton and Hazen how I treated them last spring. I guess I can do as well with you. No, sir; don't mention money to me, Frank; you're my guest."

Dorsey kept his wits about him, and when they had walked a couple of blocks down the side street, he thought the affair had gone far enough. Not that he would have been afraid to venture further,—though it would have been unwise,—but he did not

mean to miss the train that was to take him homeward.

"I say, Frank," continued Mr. Cutting, lowering his voice to a confidential tone, and walking as close as he could to his intended victim, as if afraid they might be overheard; "I've had bully good luck to-day."

"How's that?" asked Dorsey with apparent eagerness.

"They're raffling off some mighty fine paintings near here. I won three hundred dollars' worth on an investment of fifty cents. It's dead easy."

"Can't you let me in?"

"Well, I wouldn't do it with everyone, but I can't go back on my Trenton friends; they're true blue and they'll find me the same. Come on, old fellow, and you'll count it the luckiest day of your life that you met me on Broadway."

He slipped his arm behind Dorsey's and pushed slightly, but his guest held back. Mr. Cutting looked at him in surprise.

Dorsey's countenance was as grave as an owl's. Looking straight into Mr. Cutting's face, he solemnly winked.

"My dear Fred, I don't think I'll invest in those paintings."

"Why, what are you driving at, Westervelt?"

"My name isn't Westervelt, and my home isn't in Trenton."

The other stared at him, and, as a suspicion of the truth stole into his brain, his face flushed.

"What do you mean, sir, by trifling with me?" he angrily demanded.

"Come now, Cutting, if that is your name, which I don't believe any more than I believe mine is Westervelt, you didn't compliment me much by picking me up for a green countryman, but when that partner of yours slapped me on the shoulder further up Broadway, don't you suppose I saw through the whole thing? I let him think my name is Westervelt, though I didn't tell him so; he slipped ahead, and posted you, and then you thought it would be an easy thing to bunco me. My dear Fred, it won't work; it may wring your heart, but we must part company."

"No country bumpkin can play it on me like that," blustered the other, thrusting the

head of his cane down into his side coat pocket, so as to leave his hands free, doubling up the gloved and the uncovered hand, and placing himself in an attitude of attack. "You may be thought smart up in Podunk, but I'll show you that you don't amount to shucks in New York."

"What are you going to do?" asked Dorsey.

"I'll soon show you."

Dorsey had not counted upon anything like this, but he made the best of it. He held the dapper young man in utter contempt. The latter, after dancing about and feinting for a minute or two, suddenly launched out with his left. The blow was easily parried, and at the same instant, he spun halfway across the street, driven thither by a terrific thrust from the fist of Dorsey Dawson, who calmly waited for the fellow to pick up his derby and renew his attack.

CHAPTER XVII.

THE DECISION.

THE young man who had introduced himself to Dorsey Dawson under the name of Fred Cutting was dazed by the blow that sent him backward into the street, with his hat flying in one direction and his cane in another. He slowly picked himself up, walked the few steps necessary to recover the articles, and glared at his conqueror, standing on the pavement looking at him.

"I'm waiting for you, Mr. Cutting," said Dorsey.

The other glared a moment longer, and then uttered the dreadful threat which naturally comes to a defeated person:

"I'll get even with you for this."

Having brushed off his hat and replaced it on his head, he seemed on the point of saying more, when he glanced toward Broadway,

and immediately began walking off at a gait that was almost a trot.

An affray of the character described cannot occur in a city without attracting attention, and a number of people began hurrying toward the spot. Among them was a tall policeman in uniform, the sight of whom had caused Mr. Cutting to make great haste to leave the neighborhood.

"I'm in for it now," was the dismayed thought of Dorsey Dawson. "I have been caught in a fight, but I don't see how I could help myself."

"Young man, what's the trouble here?" asked the officer, as he came up beside Dorsey. "Did you strike that man?"

"Yes, sir; in self-defense."

"How was it?"

"He tried to bunco me. I laughed at him, and he said he was going to punish me for refusing to be his victim. He tried to do so, but got the worst of it."

"It has that look," remarked the officer, smiling in an odd way with one side of his mouth, and looking quizzically at Dorsey, who ruefully thought how he would feel on the

morrow, when he read in the papers an account of his arrest for fighting on the street. He was not worried as to how it would affect his parents, for no one could make them believe he had done wrong.

Then the officer added in a lower voice, not meant for the bystanders:

"I saw the whole thing. I noticed you when he led the way round the corner, and made up my mind that another hayseed was doomed. I had my eye on you from the first, and meant to interfere, but it wasn't necessary. What opened your eyes?"

Dorsey related the whole incident, adding:

"When the first fellow spoke to me I saw through it all. I thought there would be some fun in letting them jolly me along for a while. I should have gone further, if I hadn't wished to catch a train out of town."

"It isn't best to let those fellows get any grip on you. Do you know who that man is?"

"I haven't any idea. He introduced himself as Fred Cutting."

"He is one of the slickest confidence men in New York. I would give a month's pay to

be able to get testimony that would send him up the river for ten years, but he's too sharp for us. We'll run him in sooner or later."

"I was afraid you were going to arrest me."

"Arrest you? Not at all. If all the countrymen who come to New York after gold-bricks or the 'queer,' or who run against bunco-steerers, had your sense, there would be much less complaints of the wicked ways of the city."

Dorsey thanked the policeman for his kindness, and, having lost considerable time through the incident related, he boarded a cable car, which dropped him off at Cortlandt Street, down which he hurried in time to catch the five-o'clock train for Philadelphia. It arrived in Trenton on the appointed minute, and within the following hour he was in his home at the brickyard above Titusville, as glad to be with his dear ones as they were to see him.

Dorsey had no thought of keeping anything from his parents, but he did not give his account of the affair with the pretended Fred Cutting until after Maggie had gone to bed.

His sister was too young to understand it, and was likely to be scared at the thought of anyone trying to harm her brother.

"Served him right," was the comment of his father. "He deserved all and more than you gave him."

"What do *you* say, mother?" asked Dorsey, turning toward her.

"I agree with your father. When anyone is attacked, he has the right to defend himself, but you made one error."

"So I think," the husband hastened to add. "You ought to have followed him up and pummeled him until he bellowed for mercy."

"But that isn't what *I* mean," said the wife in her gentle way. "When the first man spoke to you on the street, and you knew his purpose, you should have passed on without replying; then there would have been no trouble."

"And the second scamp wouldn't have been punished at all," said Mr. Dawson indignantly. "If Dorsey hadn't waited for him, the first would have attacked him."

"I hardly think it has come to the pass that a stranger in New York is in danger of

assault for not replying to one whom he has never met. However, perhaps we have said enough about the matter. It is more interesting to talk about the visit Dorsey made to the brickyards at Haverstraw."

Inasmuch as the account had been given before Maggie went to her room, it may be said "the facts were before the house."

"How to protect the yard, dry the bricks and handle them is settled," said Dorsey. "By buying one of those machines, or rather two, we shall need the same number of men, with two or three boys, but instead of ten thousand bricks a day, we shall make forty or fifty thousand."

"We average about a million of bricks for the season," said Mr. Dawson. "With two machines we shall manufacture five millions, for bad weather will not interfere with us as it now does."

"They told me at Haverstraw that when it rains very hard there is enough leakage to make them stop work, but it doesn't often happen."

"Five millions of bricks is a big output for a single season in a yard like ours," said

Mr. Dawson, as if addressing himself. "Of course there will be additional expense."

"But much greater profits. I did some figuring in the cars, and, counting in the cost of the two machines, our profits will be double the first season, and after that about three times what they now are."

"It seems to me your estimate is too liberal. Better err the other way."

"You know we don't need steam power."

"Can you get enough from your water-wheel?

"No; but I can from the water. We'll have to make a new and bigger wheel and there's plenty of fall to the water for that. We'll use only one machine at a time, and the shaft turns slowly. There will be no trouble as to that, but there's another difficulty."

"What is it?"

"To sell five times as many bricks as we have been doing. You know we have a hundred thousand on hand now, and I don't suppose they'll all be sold before spring. How will it be with so many more?"

The father shook his head. His impulsive nature led him to be encouraged or dis-

couraged quicker than his even-tempered wife. It was she who said:

"It seems to me only two things are necessary to sell the bricks: you must make them as good as any now in the market, and sell them cheaper. Yes; one more thing is necessary—ADVERTISE."

"Nothing is easier than that," said the husband, once more buoyant. "A few hundred dollars spent among the newspapers and for the posting of handbills through the nearby towns will bring us all the buyers we want."

"Mr. Hagar recommended that," said the son, "and it strikes me the risk is small and the reward as sure as anything can be in this world."

A singular fact must be noted here. Three persons, all more than ordinarily intelligent, starting from the same premises, reached the same conclusion; and yet all failed to see the grave peril that threatened the scheme they had in mind. Sad was it that the knowledge was to come to them through bitter experience.

Dorsey was kept busy throughout the

following two or three days in finding out the cost of introducing the great change in the manufacture of bricks, the daily expense as well as that for the entire season and the probable profits. The only matter that caused misgiving on the part of the father was that it might prove impossible after the large outlay to sell the greatly increased output. The son figured that if half the product were sold at an average of five dollars per thousand, they would lose nothing. On all above that there would be a fair profit.

"I cannot feel satisfied that it is wholly safe," remarked the father, during one of the discussions, which were held almost nightly.

"Is any plan in the world safe?" asked Dorsey.

"I suppose not, but we are in a dangerous situation. I have no reserve capital to draw upon. If I succeed, I shall succeed. If I fail, I am ruined."

"I cannot see that that follows," ventured the wife. "Though the loss may be a serious one, we can, at the worst, fall back on the old way of doing things."

"Possibly my misgiving is foolish, but I

am not yet prepared to make my decision. Dorsey, how are you getting on with your scheme of manufacturing a larger number of pressed bricks?"

"I have worked it out. I have found how we can make a million of pressed bricks in a season."

"At what cost?"

"Less than four dollars a thousand."

"Then if we sell them at six dollars a thousand, the profit will be eight thousand dollars—enough fully to satisfy us all. Why not keep up our old methods and add the pressed-brick feature? We shall have only to double our sales instead of increasing them five-fold. The difference is a good deal."

"The great trouble would be that we must have new machinery made. Much of it would be of a pattern in use nowhere else. I'm afraid the expense will be greater than we can afford."

"Do you know the amount?"

"I can't tell till I show my plans to some firm in the business and get its figures. If you wish it, I'll do so as soon as I can."

"I shall be glad if you will; your figures

must have much influence in helping me to a conclusion. But whatever we do, we must run some risk; the question is which risk is the less. Whatever we do, too, must be completed next spring in time to start with the season as usual."

"Why such haste?"

"You know it is settled that you enter college next fall. This work is mainly yours, and I shall rely upon you to carry it through. I should not dare attempt it without your help."

Since it was settled that one of the plans would be adopted, Dorsey gave much of his leisure to figuring out the precise pattern of the new water-wheel. Mr. Westervelt helped him in learning what power was necessary and how best to secure it. There was little difficulty in the work. The fall of water made it easy to use a wide wheel fifteen feet in diameter, of the overshot pattern, from which there would not be any trouble in getting all and more power than was needed.

Inquiries made by Dorsey showed that to make the machinery needed for the pressed

bricks would cost double the amount anticipated. The scheme, therefore, was abandoned for the time, and the decision made to increase the output of rough bricks to the extent named and by the method described.

CHAPTER XVIII.

THE NEW DEPARTURE.

Mr. Dawson having made his decision, all doubt as to its wisdom ended, and as time passed he became more satisfied than ever that he had acted wisely.

"I agree with you," said Mr. Westervelt, one evening when the all-absorbing matter was under discussion; "for it amounts simply to increasing your output four- or five-fold, by the most economical means. The use of water power adds no expense, except the first cost of the wheel, while if you used steam and coal you would need a man to manage the engine and attend to the fires."

"Dorsey is sure the wheel is strong enough."

"We have figured that out mathematically, and our results are the same. So I think there is no doubt as to that. I must say that I am opposed to the scheme of making your

main business the manufacture of pressed bricks."

"Why?" asked Dorsey, who still felt partial to the plan to which he had given much study.

"For several reasons. You have named one—the expense of the machinery. Great as that is, I believe it would prove much greater, for the reason that it would be largely experimental. Some parts would prove weak; there would be frequent break-downs; the work would be continually stopped and the loss great."

"You have named enough reasons to frighten me," said Mr. Dawson.

"Another remains. I much doubt that if you made a million pressed bricks, you could sell them even at half-price."

"Why not?"

"The farmer who would make his outdoor oven of pressed bricks, or use the material in the side and rear walls of his dwelling, would greatly improve the looks of those structures, but would rouse the ridicule of his neighbors. It would be much like a common laborer digging gravel in a dress-suit."

The others laughed at the teacher's conceit, while admitting the force of what he said. He added:

"But the demand for rough bricks is large and growing. You know a good many lay all their walls with them and roughcast them afterward. Flagging is fast supplanting them for paving purposes, and justly so, for it is much the superior, but I do not doubt that by enterprise you can sell every good brick you make."

"I have tried to think of every obstacle to be overcome," said Mr. Dorsey, with a sigh of satisfaction. "It is likely I have forgotten a few, but they are of small account. Barring death or illness, I cannot figure out why our next season should not be the best we ever had."

"I see no reason why it should not be."

And here again was another intelligent person, as blind as the other three, who did not catch so much as a glimmer of the crushing difficulty that was as sure to present itself as the sun was to rise on the following morning. How strange the shortsightedness that sometimes afflicts us!

Long before the coming of spring, Dorsey Dawson, with little help from anyone, had his big water-wheel finished. Shafting and belting were bought, and, with plenty of time at command, he toiled with the utmost care, the result fully repaying for all the time and labor expended.

Mr. Dawson bought two improved machines for making bricks, the builders sending a couple of experienced men, who spent several days in putting them in position. As in the Haverstraw brickyards, the shafting reached from the rear of one machine to the other and was easily applied or thrown out of gear.

Everything being ready and a quantity of tough, half-soaked clay thrown into the hopper, Dorsey loosed the water upon the buckets of his new wheel, which immediately began revolving at a moderate speed. The belting having been adjusted, the shaft turned round and round, grinding the clay in both hoppers as readily as if it were so much water. When the two men who had the placing of the machines in charge had watched proceedings for a time one of them remarked:

"It works first-class; not a bit of jarring and mighty little friction."

"Have we enough power?" asked the pleased Mr. Dawson.

"You notice we are grinding the clay in both machines. You'll use only one at a time, so you've got double what you'll ever need. Yes, I reckon 'cording to that you *hev* enough," said the man with a grin.

Mr. Dawson nodded his head. Dorsey's wheel was strong enough for a yard with four machines, since only two would be in daily use.

"You are not only saving a big expense," added the mechanic, "but you aint in any danger of busted b'ilers, and water-wheels don't often chaw people up."

The employees of the firm of machine makers were practical men and had looked into everything. They said the supply of clay and loam would last for many years. Sand had to be brought a considerable way, but the item was trifling.

The brook which tumbled down the mountain side, and had formerly fed the pond that ran the sawmill, was enough of itself to turn

the wheel, which was not only skillfully made, but run on frugal principles. Although the volume of this stream often dwindled during summer drought, it never ran dry, and at such times the accumulation of a single night, added to the regular supply, would give all the power that could ever be needed.

Mr. Dawson bought the machines on liberal terms. He paid a third of the price in cash, agreeing by note to pay the balance at the end of six months, the title of the two remaining with the firm until the full bill was paid. If Mr. Dawson failed in his payment on the date named, the makers had the legal right to take the machines from the yard, and he would lose his first payment. This, we repeat, was liberal, since it guaranteed to him their use through the entire season at a cost of one-third their value.

During the few weeks that remained, a force of men were set to work building the sheds, shelves, and appliances as already described in the account of Dorsey's visit to the Haverstraw yards. All this of course cost considerable, for a large amount of lum-

ber and boards was needed. Mr. Dawson's well-known integrity made it easy for him to get the boarding and posts, with liberty to make his own terms of payment. The carpenters were paid weekly, since they needed the wages for their families.

Thus it came about that by the latter part of April, when the old hands returned to their places, with several new ones, everything was ready for them. They required little instruction in their somewhat changed duties, and no season ever opened more promisingly.

The "fly in the ointment," on the part of Mr. Dawson, was the feeling that he was in debt to the extent of several thousand dollars, all of which he had agreed to pay by the end of six months. Despite the seeming fact that the new machines would clear four or five times that sum by the close of the season, he was restless and at times uneasy. He had all the horror of debt that an honest man feels, and his experience with Elijah Collins led him to resolve never again to place himself in a similar position, but there seemed no escaping it in the present instance.

When everything was moving swimmingly,

and there was no necessity for Dorsey to stay at home, he went to Trenton, put an advertisement in the leading papers, and had a hundred posters printed. With these he started on a tour through the adjoining towns, tacking up the handbills and putting advertisements in the country journals.

The wording of the posters and advertisements was the same. The statement was made in big type, that the "undersigned" (Jacob Dawson), having greatly enlarged his plant, was ready to furnish any number of bricks of excellent quality at lower prices than ever before. The rates at the kiln were four dollars for salmon, four dollars and a half for arch, and five dollars per thousand for the best red bricks. The patronage of the public was respectfully asked.

The lowering of prices was marked, as the reader can learn by inquiring the cost of bricks anywhere, and naturally it attracted wide notice. More than one farmer drove a long distance from some point in Bucks County, Pennsylvania, and, crossing the Delaware, halted at the kiln to make sure there was no mistake in the advertisements. To

those thrifty husbandmen every dollar saved was a great virtue, and all were pleased at the golden opportunity.

Jabez Briggs, in his seventy-fourth year, drove over with his team from near Doylestown, and reined up at the yard. Since the entire output of the previous season had been sold, he wished to know how soon he could buy twenty thousand good red bricks at the reduced rates.

"I expect to open a kiln of half a million by the middle of May," replied Mr. Dawson. "You can see how fast we are making them, but they must have time to dry, and it takes several days for the kiln to cool, after the four-days' burning. I think I can promise you all you want by the fifteenth of May."

"That 'll do," remarked Mr. Briggs, "though I should be glad to git 'em a *leetle* sooner."

"Most likely, if the weather continues good, I shall be able to let you have them by the tenth of the month. I am trying to keep within bounds, so as not to disappoint you."

"That's right, that's right, Jacob; it pays

better in the eend. 'Squire Hunt, one of my neighbors, expects to want a hundred thousand this 'ere summer, and I've heered several others talk in the same way. You see, Jacob," continued Mr. Briggs with a knowing grimace, "we don't know how long this new wrinkle of yourn is goin' to last, and it's a rule with us to make hay while the sun shines. What's your idee, Jacob, of putting down the prices of bricks at sich an etarnal rate?"

"I found, after looking into the matter, that I could make a living profit at the prices named in our advertisements, and I felt I ought to be satisfied with that."

"Sartinly you should—sartinly, sartinly; for when the 'Squire and me and the rest of our people has the last brick on the wagon, we're ready with the spot cash."

"How much easier it would be to do business that way, if everyone was agreed. Well, Mr. Briggs, I shall be glad to serve you when you need any of my stock."

"Do you give me your word, Jacob, that them advertised rates of yourn will be the same fur the hull season?"

"You have my word that there shall be no change in them."

"That's all I ax, Jacob. I know you'd ruther lose all you own in the world than break your promise."

"I have never done so, and it is too late in my life to begin."

"That's right, that's right; you'll hear from us in a few weeks. Remember, you've got as good as a hundred thousand sold, and you mustn't forget to hold 'em for us."

"You shall not be kept waiting," replied Mr. Dawson, as Mr. Briggs turned his team in the road and set them jogging homeward.

CHAPTER XIX.

THE UNEXPECTED.

Mr. Dawson stood at the side of the highway, in front of the brickyard, looking thoughtfully at the figure of the old man in his rattling wagon, half hidden by the cloud of dust. The brickmaker was in good spirits, for the visit of the venerable farmer justified the feeling. More than a thousand dollars' worth of bricks had been as good as sold, with the prospect of further sales in the same neighborhood. The advertisements had appeared in many other quarters, from which it was fair to expect good results.

"Good morning, Jacob! A fine morning; how are you?"

It was his neighbor, Benjamin Tripps, who had approached from the rear. The two shook hands, and side by side walked toward the yard. Mr. Tripps lived in the village, and was a traveling agent for a hardware firm in New York.

"I heard of the great improvements you had made in the yard," continued the neighbor, who was in a gushing mood; "and no one is more pleased than I. You deserve success, Jacob, you certainly do."

"I can't say that I deserve it more than you or anyone else, but all the signs are that I have made a wise move."

"There's no doubt of it, no doubt of it; I have heard of it everywhere. All agree that you are on the high road to fortune. Good; nothing could please me more."

In a few minutes they reached the yard, where the men were at work. Mr. Dawson, with pardonable pride, explained the working of one of the new machines and pointed out the other improvements made. Mr. Tripps showed the greatest interest and pleasure, praising effusively the enterprise of Mr. Dawson, and making glowing prophecies of the wealth he was sure to roll up.

"And no one deserves it more," he repeated. "I have talked with scores of your friends, and they are as much pleased as yourself."

"It is pleasant to know that, and you are

kind to repeat their words. Why should not everyone feel happy over the prosperity of his neighbor?"

"No reason at all, no reason at all; that's the way I feel, and I am sure you do. By the way, Jacob, I have called to ask you to do me a little favor."

"In what way can I serve you, Benjamin?"

"I have a note to put through the Trenton bank. Of course I must have an indorser, but it's only a matter of form—a mere matter of form. The banks, you know, all require it; they're very particular, but I suppose it's all right."

"What is the amount of the note?"

"Only a thousand dollars, for three months. I happen to need it just now, but I shall be flush in thirty or sixty days. I intend to anticipate its payment, so as to get the allowance for interest."

Mr. Tripps, while talking, gently led the way toward the house, where pen and ink were to be had. Mr. Dawson walked thoughtfully at his side.

"I should like to oblige you, Benjamin, but I have already assumed obligations

amounting to several thousand dollars, and it makes me somewhat uneasy."

"Uneasy, with this fortune at your feet!" The neighbor waved his hand toward the yard they were leaving behind them, and laughed so uproariously that Mr. Dawson almost felt ashamed of himself.

"Of course, I shouldn't have assumed it, if I hadn't felt confident of being able to pay it when due. All the same, the knowledge at times disturbs me. I do not feel willing to add fifty per cent. to my obligations, for it is not fair to my family."

"But, my dear Jacob, you are not adding a penny to your obligations. Do you suppose I would ask you to go on my note if there was the slightest doubt of my ability to meet it when due? No, sir. I'm not that sort of man."

And Mr. Tripps looked aggrieved.

"I don't assume that you would, Benjamin, but you have no property. Suppose you should die between now and the date of the maturity of the note?"

"I have a life-insurance policy of five times the amount."

"But that cannot be attached for your debts; besides, I should be unwilling to distress your family."

"I have already spoken to my wife. She doesn't like to talk of such things. You know how all wives feel. But she understands it and has promised to see that you are paid in full. Maria would hold such a claim sacred."

"Suppose you should live for a good many years to come, as I hope you will, but should find yourself unable to pay the note?"

"Why, Jacob, I would sell the shirt off my back to meet the debt."

"But," said Mr. Dawson with a smile, "the shirt off your back wouldn't pay the note."

"Jacob," said the other, stopping short and facing him with a solemn countenance, "I GIVE YOU MY WORD!"

He paused to allow the declaration to impress the other. Mr. Dawson, recalling his own glowing prospects, began to feel mean.

"I believe in 'live and let live,'" resumed Mr. Tripps. "Suppose we should all refuse to help our neighbors, who can estimate the

misery and suffering that would follow? I have found it a pleasure worth far more than the money to help a friend when he is down; an obligation of this nature, as I have told you, is a sacred thing to me. You need never give the matter a second thought. I will look after the note—that is, if the bank will take it with your indorsement. I tell you, Jacob, I need this more than you think. If I don't raise it this week, my furniture will be sold, and at the end of the month I shall have no roof over the heads of my wife and little ones. I——"

But the tears were in his eyes and his voice became so tremulous that he had to stop and swallow several times before he could resume.

"There, there. Let me see the note," said Mr. Dawson, taking the bit of paper in his hand and scanning it. He saw that it was, as Mr. Tripps had stated, for one thousand dollars, payable in three months, and it was drawn to the order of Jacob Dawson.

"I don't feel that it is exactly right for me to do it, Benjamin, but I am sorry for you and your family, and I shall rely upon

your promise that I need give myself no further concern about it."

"Why, certainly; of course not. I have never broken a promise of that nature, and you will have the satisfaction of feeling you have done a neighborly act and that it will not cost you a penny."

It need hardly be said that Mr. Dawson led the way to the house, where he wrote his name across the back of the note and handed it to Mr. Tripps, who was profuse in his thanks, as he hurried away to board the first train to Trenton. It happened that Mrs. Dawson was absent just then, and somehow or other, her husband was glad of it.

Hoping and yet doubting that he had done right, Mr. Dawson walked round the house, and started to return to the brickyard over the short stretch of highway which led to the kiln that stood near the road. He had not quite reached it, when a smartly dressed gentleman, rather corpulent, and seated in an open trotting carriage, drew up beside him.

"Good-day! Are you Mr. Jacob Dawson?"

"That is my name, at your service, sir."

"You are the proprietor of this brick-yard."

"I am. What can I do for you?"

Instead of replying, the stranger dropped his reins between his knees, and, holding them thus, drew a newspaper from his pocket. Without unfolding it, he handed it to Mr. Dawson, who saw his advertisement exposed on the outside, with blue pencil marks drawn around it.

"Is that your advertisement?"

It has been shown that Mr. Dawson was naturally quick-tempered. His gorge began to rise at this curt cross-examination.

"Inasmuch as my name is attached to the bottom, your question is unnecessary."

"It is easy to tack any name at the bottom of an advertisement. I merely wanted to guard against mistake, and to make sure that you authorized that advertisement."

"I most assuredly did."

"And you intend to carry out its terms?"

The questioner remained exasperatingly cool, while Mr. Dawson's resentment increased.

"If you think me capable of breaking my

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TILDEN FOUNDATIONS

word, I have nothing more to say or hear from you."

Mr. Dawson turned to walk away, when the stranger took the lines from between his knees, leaving the newspaper in the hands of Mr. Dawson, to whom he called:

"One moment, my friend. You are an older man than I, but you have considerable to learn, and you are going to learn it like a house afire."

"I have given you my name. Who are you?"

"You will find out sooner than you expect. Good-day, Mr. Dawson!"

And turning his trotter in the road, he set him going at a spanking gait in the direction of Titusville, leaving Mr. Dawson flustered and in anything but a pleasant mood. His first intention was to give the particulars of the curious interview to his wife and Dorsey, but after reflection he decided to say nothing of it for the present.

"It isn't right to worry Lucy with my petty annoyances. She doesn't know anything about my indorsing Tripps' note and I'm glad of it; and if I should repeat the threats

and insults of the man who has just left, it would distress her, and not mend matters. As for Dorsey, he's a good deal like his mother. Neither of them would condemn what I did, no matter how much they might regret it. The time for me to discuss questions with them is before I act, not afterward. All I hope is that if bad consequences follow, they will fall upon me alone."

But alas! how rarely mistakes result that way.

The days passed, and nothing more was heard of the corpulent man in the carriage who had talked so loftily and made several threats. Mr. Dawson began to believe there was nothing in it, though he could not quite free himself of a misgiving. As for Tripps' note, he must wait until it matured before there would be any development concerning *that.*

As to the former all became clear before the time for Mr. Dawson to open his new kiln. The first revelation was an advertisement in the village paper. It was in the column with his own, occupied the same space, appeared above it, and was signed by

eight leading brick manufacturers. The language was almost identical with Mr. Dawson's, and the announcement was made that until further notice the undersigned would sell salmon bricks at three dollars, arch at three and a half, and the best red bricks at four dollars per thousand.

On the same day a letter came from Mr. Briggs, informing Mr. Dawson that posters had been put up in their neighborhood telling where bricks could be bought at much cheaper rates than they were offered by Mr. Dawson. The prices were quoted, and Mr. Briggs concluded:

"Bein' as how we can save so much expense, of course me and my neighbors will not be able to buy any from you, onless you make the prices a little lower, which we hope you'll do, though you pledged me that there wouldn't be no change this year."

"How was it none of us thought of *this?*" asked Mr. Dawson, at the first conference when Mr. Westervelt was present.

"It was a strange oversight on our part," replied the teacher, much depressed, for he saw the serious consequences to his friends.

"As I understand it, your rivals are offering bricks in any quantity at actual cost price."

"At less, for their expenses are greater than ours, and I cannot make and sell bricks at those prices."

"I don't see how they can stand it," ventured Dorsey.

"Those firms have plenty of capital behind them, and they can stand it a good deal longer than I—long enough to ruin me, for I can't last out the season."

"Then we must cut down our prices till some new arrangement can be made."

"Impossible."

"Why?"

"I have given my promise not to change my prices this season."

"Surely there is no objection to your *lessening* your prices," said Mr. Westervelt with a grim smile.

CHAPTER XX.

MORE THAT WAS UNEXPECTED.

EVERYTHING had been done in a legitimate manner, with the result that the financial ruin of Jacob Dawson was at hand.

He had the right to set the prices for which he would sell the products of his brick-yard; the same right of his rivals was just as clear; while the people were equally free to buy of whomsoever they chose. That they would buy where they could save money was as natural as for water to run downhill.

Thus the danger which no one of the four foresaw, had come upon the family with startling suddenness, and the worst of it was that not one of the party could see a way out of the woeful dilemma. The first thought was that Mr. Dawson should call upon his rivals and join with them in fixing a fair price for bricks, but he was estopped from that by his pledge to Mr. Briggs that he would make

no change during the present year. Of course he could *lower* the price, since the spirit of his promise was that no increase should be made, but such a change would render the situation worse than before, since his loss must be correspondingly greater. Moreover, another cut by him would be followed by a bigger cut by his rivals, whose capital enabled them to stand the loss until Mr. Dawson was forced out of the business, when the prices would be raised to the former figures.

The situation was bad, but there was no help for it. One suggestion was made by Dorsey, but it offered little hope. It was that matters should be explained to the men, and their consent asked to reduction in their wages, with the promise that the difference would be made up to them the next season, when larger prices could be obtained.

"It won't work," said Mr. Westervelt. "The men now receive only small pay, and they need it, for most of them have families depending upon the earnings. Reimbursement a year from now looks too vague to tempt them. Furthermore, as we have just agreed, a cut upon your part would be met by a

greater one by the other manufacturers. There is but one remedy: that is to propose to our friends, who just now are our enemies, that they restore the prices to their former figures, you agreeing to do the same. I am quite sure they would agree to that."

"But," said Mr. Dawson firmly, "I have explained that that is impossible because of my promise."

"To whom was it made?"

"To Mr. Jabez Briggs, who drove over from Pennsylvania some weeks ago."

"Will he not release you?"

"I am unable to say as to that, but it seems to me that all my advertisements are equally binding."

"By no means, as was proven by Mr. Briggs' asking you to supplement the advertisement with your word. If you change the notice and fix a date in the near future when you will raise the price, your action cannot be criticised."

"But," said Mrs. Dawson, "you are acting on the theory that the other parties will agree to your plan. It is they who form the unknown factor in the problem—or, rather,

the known one," added the former school-mistress.

"We cannot reach any conclusion to-night," remarked Mr. Westervelt, who seemed more hopeful than anyone. "Go ahead and make the bricks just as you have been doing, and don't take any step until I see you again. I have an idea which may or may not prove worth anything."

"When shall we see you again?" asked Dorsey.

"Say next Monday evening. That is four days away, and it will give me time to test my scheme."

The only gleam of hope that came to the depressed family was from this weak promise of the teacher, who, assuming a buoyancy of spirits he did not feel, bade the family good-night and went to his home.

Mr. Westervelt's plan could not have been more simple. He recognized among the eight names that of a young man who had succeeded his father in the brick business and who had been a member of his class and society in college. While they were never intimate, they had always been on good

terms. The teacher meant to go to this gentleman with a frank statement of the situation and appeal to his magnanimity to remove the ruinous pressure brought upon Mr. Dawson.

He did so. His friend received him with the utmost courtesy, but became frosty of manner the instant his business was explained.

"Even if I am disposed to act, which I am not," he said, "I am powerless. As you know, I am but one among eight. Nothing can move the other seven. Mr. Dawson took this step without consulting any of us. He was defiant to one of our number who called to discuss the matter, and notified him that he would live up to the spirit and letter of his advertisements, and that he cared nothing for us. We were therefore compelled, as you must admit, to do what we did in self-defense."

"And its object?"

"Frankly, to drive Mr. Dawson out of business."

"Suppose he will agree to restore the prices next season?"

"Then we will talk with him 'next season.'"

"He would do so now, had he not pledged his word to make no change."

"We have nothing to do with that. It may be assumed that he considered the consequences of this step before he took it."

"He most certainly did not foresee this."

"Which is his misfortune."

"Suppose he should make his prices the same as yours for this season?" ventured the caller, although he was now treading on forbidden ground.

"We should instantly cut ours in halves."

"Then there is no use of discussing that phase of the situation?"

"Certainly not, and permit me to say I am surprised that you should suggest it."

"I gather from what you say that the only compromise is for Mr. Dawson to agree to make his rates permanently the same as yours and those of your friends?"

"The other gravely bowed.

"He must first do that before we are prepared to talk with him. Bear in mind, Mr. Westervelt, that I make no promise for my-

self or my associates. I cannot say that they may not deem it advisable to continue the cut rates after Mr. Dawson has restored his to the former figure."

"With the object of crushing Mr. Dawson and ruining him?"

Mr. Westervelt was indigant, though he held his temper. His friend shrugged his shoulders and elevated his eyebrows.

"I did not say that, but you are at liberty to draw what inference you please. I have considerable work awaiting me, and hope you will be good enough now to excuse me, Mr. Westervelt."

"Good-evening, sir."

"Good-evening," coldly replied the other, wheeling around to his desk.

As may be supposed, the next conference of our four friends was anything but a joyous one. No one saw hope in any direction. Mr. Dawson decided to continue the manufacture of bricks as long as his capital permitted, and then, when his funds gave out, he would dismiss his employees and await developments.

This was acceptable to Dorsey, whose in-

ventive mind began to perceive dimly a new way out of the difficulty. He decided to say nothing to any of his friends, in order to save them from disappointment, but every day the hope brightened until it became so strong that he revealed it to Mr. Westervelt.

"My gracious, Dorsey, but you're a genius!" exclaimed the admiring teacher. "You have found the key to the situation. Never in all the world should I have thought of *that*."

"I can't feel as hopeful as you; you must help me to put out some feelers. When the thing is fixed in black and white, then I'll have the pleasure of telling father and mother."

The scheme of the youth was in truth an ingenious one, and there was reason for hoping it would bring success; but that could not be seen for several weeks, and meanwhile incidents moved rapidly in other directions.

In the flurry caused by the events just narrated, Mr. Dawson wholly forgot Mr. Tripps and the note that he had indorsed for him. The first reminder was a telegram from Mr. Tripps in Chicago:

"Please take care of note; will explain."

An aggravating feature of this was that Mr. Dawson was obliged to pay the cost of the message, notifying him that as indorser of the note he would have to meet it. It fell due that day, and notice of its protest reached him by next morning's mail, with word that the bank looked to him for its payment.

Perhaps the indignation of Mr. Dawson when he recalled the pledges of Tripps may be understood. Some of the adult readers of these lines, like the writer, have been caught in such a "fix," and can feel for the victim, whose resentment was directed partly against himself for his weakness in acting contrary to his judgment.

It was impossible for Mr. Dawson to pay the note, although he had a small balance in bank. He went to Trenton the next day to see what arrangements could be made. He had too much sense to find fault with the bank people or to complain because he had been victimized. He should have thought of all that before, and never indorsed a note unless able to make good its loss.

Just as he was going up the steps of the

bank, with whom should he come face to face but Benjamin Tripps!

"Why, I thought you were in Chicago!" he said in astonishment.

"So I was, but had to return unexpectedly."

"I judge you have been in the bank to fix the note."

"I'm awfully sorry, Jacob, but I am the most unfortunate person——"

"None of that; it looks as if you are very fortunate. Do you remember your promise when you asked me to indorse your note?"

"Of course, but what can a fellow do when he is caught like me?" and Tripps tried to edge away, but Dawson would not permit.

"You pledged me your word that you would pay it in full when it fell due."

"If other persons break their agreement with *me* what can *I* do?"

"There were no conditions to your promise. It was absolute."

"I have parties owing me, and they failed to come to time. That leaves me in the lurch. I'm willing to do all I can, but I can't do anything at all."

"Can't you pay a part of the note?"

"Not a dollar; I have just about enough to buy a ticket home to Titusville."

"Come into the bank with me, and let us see what can be done about renewing a part of the note."

Tripps would have drawn away, but Mr. Dawson was resolute and forced him to go back with him to the directors' room. There, after much talking, the bank permitted a partial renewal of the note. Mr. Dawson paid one hundred dollars upon it; Tripps signed a new note, which Dawson indorsed, and received the old one in return.

Dawson insisted that Tripps should pay the discount and protest fees and he took out his pocketbook to do so. It was a thoughtless act, for it revealed that he had a considerable number of bills in his wallet.

"You have enough there, Tripps, to pay the costs and the hundred dollars I have just advanced; pay them!"

"But—but—this isn't my money," faltered Tripps, confused.

"I know it isn't; it's mine. Let me have it!"

"But—but——"

"*Let me have it!*"

Bewildered, the fellow passed over the amount to Dawson, who hastily counted, and thrust it in his pocket. The three directors who were in the room smiled, for they enjoyed the brusque style in which Dawson carried his point. They knew he was honest, while Tripps was not.

"Now you can go your way and I will go mine," added Dawson. "You never intended to pay the first note, and you don't intend to pay the new one, but I may have a string to pull of which you know nothing."

CHAPTER XXI.

MR. JAMES BOSKIN.

One of the curious facts in life is that we suffer more from petty annoyances than from great ones. The fly that continually returns to tickle our nose, when trying to sleep, and the mosquito that persists in buzzing about our ears, making a nipping bite as chance offers, and dodges our slaps at him, roils our temper more than a violent blow would do. Too often the angry word, soon forgotten by him who utters it, rankles in our memory, while the gentle expression is forgotten.

It will be admitted that Jacob Dawson had enough on his mind to worry him and drive refreshing sleep beyond his reach. When on the verge of a great success, he had seen his hopes crumble to fragments. While certain of prosperity and success, he found himself face to face with ruin; and yet, through the days and weeks following the distressing dis-

covery, he was more disturbed by the recollection of the promissory note which he had indorsed for Benjamin Tripps, and which the drawer tried to force him to pay, than by the shadow of the overwhelming calamity.

Every feature of the affair was aggravating. He recalled the grandiloquent manner in which the man attempted to bear down all objection by "giving his word" that the note would be met by him; of his pledge that Mr. Dawson need never give the matter a thought; that he would sell the proverbial shirt from his back, rather than cause the indorser any loss. But perhaps the most irritating feature was his cool telegram from Chicago, asking Mr. Dawson to take care of the note and compelling him to pay the expense of the telegram. The subsequent proof of Tripps' dishonesty, when he was met on the bank steps, was not so exasperating as the message, for to Mr. Dawson the latter was the essence of meanness itself.

While Dorsey and his mother believed the silent thoughtfulness of the father was due to his trouble about his business, he was really thinking of Tripps and the note of which

neither mother nor son knew anything. The head of the family brooded over it, and when he ought to have been asleep often tossed on his pillow, speculating over the means he could use to compel the man to keep his pledge.

Mingled with these thoughts was bitter condemnation of himself, for his weakness in acting against his own judgment. He had lost money before through the same cause, though the memory did not rankle like this, and he had inwardly resolved long before not to repeat his error. But, much as he condemned his own course, his feeling against Tripps was very resentful. Finally, he acted upon a resolve that was the result of all this worrying thought.

"I think it necessary to go to New York to-morrow," he said to his wife and son one night just before retiring. It was his custom to give the reasons for such action on his part, but he did not do so in the present instance, and neither questioned him.

"It is on account of this business," thought Dorsey, when in his bed. "I can't understand what he hopes to do. I should like to give

him a hint of the problem Mr. Westervelt and I are working at, but we haven't got far enough with it yet."

On the following forenoon Mr. Dawson walked into the large wholesale hardware house of Boskin Brothers, New York, and asked for one of the firm. George, the senior partner, was in Europe, but James, the junior member, sent word that he would see the caller in his private office at the rear.

Mr. Dawson was fortunate in one respect. James Boskin was a genial philosopher, bald, well-groomed, rotund, and sunny, with the strictest ideas of integrity, and a man who would rather lose a thousand dollars than take a penny that did not belong to him. He was known for his pleasant disposition, and in his quiet way he gave large sums for charity. He was very wealthy, with a large family, no member of which had to ask him a second time for a favor or indulgence.

Taking the measure of Mr. Boskin quite truly during the first few minutes of their interview, Mr. Dawson thought it best not to beat about the bush, but to come at once to the point. While doing so, Mr. Boskin flirted

his golden spectacles back and forth over his forefinger, beamed kindly but thoughtfully into the face of his caller, nodded his head now and then, said "Ah!" and "Bless me!" and "Is it possible?" several times, clearly showing he was interested in the story.

"It pains me to hear all this," he said, when the account was finished. "Mr. Tripps' course was as unworthy as your own was foolish."

"I agree with you. When I recall my weakness it is with a feeling of self-disgust."

"And, having done a foolish thing, you wish us to help you cure yourself of your weakness," observed Mr. Boskin with an expansive smile.

"I am sure I am cured."

"Is this transaction with our agent the first instance of thoughtless indorsement by you?"

"I must confess, Mr. Boskin, it is not."

"Then why do you refer to yourself as being cured of the bad habit?"

"Because my last lesson is too severe for me to invite another penalty."

Mr. Boskin continued to flirt his spectacles back and forth over his forefinger while he leaned on one elbow and beamed in the face

of his visitor. There was a gentle sigh, as he said in his low, pleasant, but grave voice:

"Who can estimate the injury done by the careless habit of indorsing or going security for another? Now, nothing in my judgment is more un-Christian than for one to take the ground of absolute refusal to do anything of the kind, for many instances arise when to refuse is cruelty, and distress and suffering are sure to follow an act that is wholly safe. On the other hand, the man who lends his credit to all who apply deserves little sympathy when brought to ruin. The sad feature in the latter case is that the innocent are sure to suffer. Now, Mr. Dawson, I have no intention of preaching a sermon to you."

"Say whatever you choose, and you will find me an attentive listener."

"You realize too clearly your mistake for me to dwell upon it. The safe rule in these matters is, when a friend applies to you for such an accommodation, to demand time to consider the matter. Insist that you be given a night in which to think it over. Quite likely your applicant will insist that haste is

important, in which case you must firmly decline unless you are given the time you ask. Little fear that he will not grant it.

"Before availing yourself of this grace, question your applicant sharply as to why he is in need of the special accommodation. Make him tell you the whole truth; be particularly careful to acquaint yourself with his resources. Be very shy of the man who declares he will work as a common laborer or will sell his shirt from his back [Mr. Dawson winced] or make any sacrifice to save you from loss. All such are the first to forget their promises and to look upon any insistence on your part as injustice and meanness.

"Having taken these precautions, discuss the matter with your wife. I tell you, Mr. Dawson," said the merchant, warming up, "the impulses of a good woman can always be counted upon to discount our judgment. If you take a stranger home to dinner, and your wife tells you she distrusts him, no matter if you had made up your mind to enter into some business deal with him, *don't do it.* If you do, you will surely give

your wife the opportunity to say after a while, 'I told you so.'

"It is safe to assume that the result of the family council will be wise. Never indorse an accommodation note without talking it over with your wife——"

"Which is precisely what I neglected to do in this instance."

"I suspected it. The difference between an accommodation note and one given in the regular course of business is that in the latter the drawer knows he *must* make provision for meeting it, while in the other he *hopes* to be able to do so. Equally important is it for you to figure out whether you can make arrangements to take up the note yourself, in case of the probable default of payment. You should induce your friend to lessen the amount of his note, or, better still, loan him the money outright, taking the note yourself with security, for then there can be no future trouble for you. Of course, if, in your investigation during the brief interval at your command, you find he has misrepresented in any way, you must refuse all further dealings with him. But I beg

your pardon. I am doing the very thing I pledged myself not to do. I shall be pleased if I can see any way of helping you."

"Tripps is in your employ, and I am sure receives good pay."

"For three years his annual salary has been twenty-five hundred dollars, and last January we made it three thousand, which, of course, is in addition to his traveling expenses."

"That is quite liberal."

"We think so, though Mr. Tripps is a valuable man. He has told me that he has a wife and two little girls who live in Titusville."

"Such is the fact."

"Sixty dollars a week, for we give all our employees an annual money present, ought to support his family comfortably."

"Yes, and allow a fair surplus. His wife is an economical, hard-working woman whom I have known since childhood."

"Mr. Tripps is not a drinking man, and I believe his habits are good. His trouble is that he is impatient to become rich. He is continually making little ventures in Wall

Street, and it keeps him poor. I accidentally learned of this practice, and when we raised his salary the last time I made him promise he would stop it. This note in which you are involved proves that unfortunately he has yielded to temptation."

"Since he receives so liberal a salary, Mr. Boskin, what objection have you to deducting the nine hundred dollars from his pay and giving it to me?"

"You would not wish to take all his salary for nearly four months?"

"By no means, but to lay aside a portion until it amounts to enough to pay his note about which he has acted so dishonorably."

"Suppose he should quit our employ?"

"Then of course I am a loser, for I do not mean to hint that you should advance me the money and then gradually deduct it from his salary."

"Suppose he objects to doing this?"

"Can you not compel him to be honest?"

"No machine has yet been invented or law framed that will make a man honest. Mr. Tripps has the legal right to refuse his consent to your plan if he chooses, and if he

insists that we shall pay him his two hundred and fifty dollars on the first of each month, we have no choice but to do it. His personal debts are his own affair with which we have nothing to do. Our contract with him is that he shall render us a certain service for which we bind ourselves to pay him a certain sum: that is all."

"It begins to look as if my trip from home is a wild-goose chase," said Mr. Dawson with a sinking of spirits.

"Not necessarily so. I wished to impress upon you the truth that when a man makes a fool of himself, the world is ready to laugh, but has mighty little inclination to reach out the helping hand. If we deliberately run against our own judgment, we *ought* to suffer. But you have a family. Probably they would feel this more than you. It may be I can give you some assistance. I shall try, trusting that the lesson will not be lost upon you."

Precisely what Mr. Boskin had in mind he did not explain. It was a comfort to Mr. Dawson to know that his debtor would have to listen to one of those sermons which, in

his case, would cut deep. After more pleasant interchanges, the caller bade the genial merchant good-by and left for his home.

Let us complete this incident while it is in mind. Some days later Mr. Dawson received a letter from James Boskin, informing him that he had laid the matter before his agent, Mr. Benjamin Tripps, who had agreed that one-half of his monthly salary should be set aside to meet his promissory note, and Mr. Boskin took pleasure in forwarding the first installment. They followed regularly until the whole obligation was wiped out, and Benjamin Tripps did not owe Jacob Dawson, who had taken up his note, so much as a penny.

Mr. Jacob Dawson, therefore, came out of the complication more fortunately than he had a right to expect and better than he deserved.

CHAPTER XXII.

SOMETHING IN THE WIND.

THE month of August had come, and the affairs at the Titusville brickyard were still under a cloud. By using all the space possible, Mr. Dawson had put his bricks into kilns, which were burned. He gave his best skill to this delicate work, and attained marked success. There were two millions of bricks in round numbers ready for the market—but, alas! not a single purchaser appeared.

Including the cost of the new machines, other expenses, and the wages of his men, Mr. Dawson was out to the extent of four thousand dollars. While the employees' wages had been paid in full, he was yet to receive the first dollar in the way of returns. His agreement with the manufacturers of the machines, as I have stated, was that they should take them off his hands if the entire

amount was not paid on the first of the following October. He had no money in bank, nor was there any prospect of obtaining any. To live until the next season he must run deeper in debt—a prospect which he faced with a shudder.

Meanwhile, Dorsey and Mr. Westervelt were absorbed in some kind of a plot which they studiously kept to themselves. The teacher made a short visit to his home during the regular summer vacation, but he would have shortened that had he not been able to continue the underground work while absent from Titusville.

The doings of these two young men, to say the least, were singular. In the first place, each sent several letters to points that neither had ever visited, though they happened to have acquaintances there. By and by they began receiving replies, which they read to each other and carefully preserved. The curious feature of this correspondence was that it made the spirits of both more buoyant.

"I don't see what put it into your head, Dorsey," remarked the admiring teacher one

afternoon, when they were sitting on a fallen tree just beyond the brickyard. "It beats any invention you ever made."

"It seems so simple to me that I'm afraid our rivals have thought of it and will head us off."

"These letters prove that no suspicion has as yet entered their minds. Matters ought to come to a head pretty soon."

"The hardest part of the business is to keep from dropping a hint to father or mother, and lifting a part of the heavy burden from their hearts."

"Why, my dear boy, they know it!"

"Have you told them?" asked the astonished Dorsey, turning sharply on his companion.

"Not a whisper."

"Then how can they know anything about it?"

"Secrets are told by actions as well as words. When they see their son, who was thoughtful and worried, suddenly break out singing or whistling; when he walks faster than usual; laughs on the lightest provocation, and no doubt chuckles now and then

to himself, they may not know *all*, but they are certain that something is in the wind."

"I wonder if they have noticed those actions in me," said Dorsey with a grin.

"Is there any peculiarity of your conduct that can escape the eye of your mother? She and your father, I am sure, have talked about it many times."

"Gracious! I never thought of that. I ought to have been more careful. And how about *you?*" suddenly asked the younger.

"Me! What have I been doing?"

"Why, the other night you told a story that had mighty little point. I laughed to help you out, but you nearly fell off your chair, roaring with mirth at your own nonsense. Then you winked at Maggie, and set her giggling. Before you got out of the gate we heard you whistling, and father said he never saw you in such a merry mood."

Mr. Westervelt laughed again.

"In noticing your high spirits, it never occurred to me that I was betraying myself. I thought I was a model of dignity and self-control."

"About as much as I am."

"One cannot carry sunshine into a home without all feeling its blessed influence. I have thought once or twice that it would be better for you to say to your parents that you are engaged in a scheme which promises good results, but since they must have suspected that, it may be well to hold off until we know something more definite, which must be very soon. Have you seen Mr. Briggs?"

"I drove over there the day before you came back from home. What a shrewd old fellow he is! He has bought all the bricks at the low prices that he is likely to need for ten years to come, and therefore doesn't care anything now about their price, but he hemmed and hawed until I nearly lost patience. Some of his questions were very keen."

"You didn't give him any intimation of—this thing?"

"Not I. If the old fellow thought he could make five dollars by selling the secret, he would drive twenty miles to do it."

"And you secured his consent?"

"Yes, he finally gave it. That will satisfy father, and the way is now clear."

"An excellent piece of work on your part."

"One thing troubles me, for father said something the other night after you left which showed it is in his mind."

"What is that?

"You know how bad things are; he must have at least two thousand dollars by the close of the season, or the machines will be taken away, and we shall have to run into debt to live until next summer. Now, suppose he offers the two million of bricks, ready for the market, at such low prices that all will be sold?"

"Have you any price in mind?"

"He did not name any, but suppose he threw them on the market at two dollars a thousand, so as to sell the whole number?"

"It would involve him in a great loss."

"But don't you see it would give him the money he needs? He could save the machines, pay his other debts, and feel a good deal better?"

"Quite likely, from what you say, he is weighing the matter in his mind; but two million bricks is a big lot to sell. There is

not enough demand outside of the nearby great cities for him to sell them in a lump."

"But he might do so in lots."

"The moment his rivals learned of it, as they would be sure to do before he could sell many, they would meet him with a still greater cut in the prices."

"He must have thought of that, but even if he sells only a part the money will be a great help; and I know he is thinking of doing that."

"We must take care that he doesn't make a mistake of that kind."

"Perhaps I would better tell him and mother the whole thing."

"Would he take a step like that without talking with you and her?"

"I guess not, but he might."

Mr. Westervelt was silent for a minute.

"It looks childish on our part to carry around a secret like this, but I have felt from the first that it would be a kindness for us to keep it to ourselves until able to speak with more certainty. Suppose we compromise by leaving it until the beginning of next week? We ought to know something positive by

that time, and whether we do or not we will let in your parents on this grand secret."

"I like that idea."

As Dorsey spoke he drew from his pocket one of the several letters he and the teacher had received. It was typewritten, and the last that had come to hand.

"Do you notice that he says at the bottom of this letter from Chicago that he may come on to see us? If he does, you ought to meet him, Mr. Westervelt."

"No, for the letter is addressed to you. What excuse would there be for me to obtrude myself?"

"As my sentimental partner."

"There's no sentiment in business, and this is business straight through. Let's walk to the village for the afternoon mail."

The two rose from the fallen tree and sauntered down the road, pausing for a few minutes at the house to tell the mother where they were going. The father was at the brickyard, and they did not see him.

They reached the post office a few minutes after the opening of the mail. A letter was handed to Mr. Westervelt and one to Dorsey

Dawson. Both were so interested that they hurriedly opened and read them while in the office.

Finishing at the same moment, and looking at each other, they smilingly exchanged the missives without speaking. The one addressed to Mr. Westervelt was similar in wording to the several that had already reached him from widely separated points. It was that fact which pleased him.

The letter of Dorsey was from the Chicago firm whose communication he had discussed with his friend when they were sitting on the log near home. It merely stated that the writer would be at the Trenton House the next day at two o'clock in the afternoon, and would be pleased to meet Mr. Dorsey Dawson to discuss the matter upon which they had had some correspondence.

"Of course you will not let anything interfere with your meeting him?" said Mr. Westervelt, as they walked up the river road toward the brickyard.

"No; I shall be on hand if I'm alive."

"A suggestion: don't go to the Trenton House a single minute before two o'clock."

"Why not?"

"In business matters it is important to be on time to the second if possible, but better late than too early. Mr. Pittston wants to meet you. If he didn't he wouldn't come all the way to Trenton to do so, but it will be unwise for you to appear so anxious for the meeting that you present yourself before the time appointed."

"That sounds sensible. I may be in sight of the hotel, but will make sure that I don't enter until two o'clock. I don't suppose the interview will be very long."

"I should think not. If I have nothing to occupy me, I will go down to the village at four o'clock to meet the train."

With this understanding, the friends soon parted. On the following morning Dorsey told his parents that he would go to Trenton, if they had no objection (as if they would object to anything of the kind). He kissed all good-by, saying he hoped to be back by the afternoon train, though it was possible he might be kept till later in the evening.

At four o'clock Mr. Westervelt was at the station, but his young friend did not arrive.

"That looks like business," mused the teacher, as he strolled homeward. "Dorsey and Mr. Pittston have found some subject of interest. I think I shall wait until to-morrow before seeing him. If he isn't over early I'll go down to his home."

"I am sure, Lucy," said Mr. Dawson to his wife at the supper table, "there's something in the wind, so far as Mr. Westervelt and Dorsey are concerned."

"I have been certain of it for more than a week. Both are running over with high spirits."

"Yes. Dorsey pinches and plagues me more than ever," remarked Maggie dolefully. "Let me show you where he pinched me this morning."

She rolled up the sleeve of her chubby arm, and twisted and turned it over in search of the black-and-blue evidence against her brother, but was unable to find it.

"It must be t'other arm," she added noticing the smiles on the faces of her parents.

But the other plump arm was equally free of any evidence.

"I don't care," she insisted, "it *ought to be*

black and blue, for he chases me and tickles me and pinches me awful. Why, yesterday he pinched me all over!"

"Why don't you pinch him?" asked the father.

"I do; twice as much as he pinches me, and twice as hard too! I always begin it first so as to get ahead of him."

"Then what are you complaining about?" asked the mother.

"'Cause when I pinch him, he should stand it and not pinch me."

"Why should he do that?"

"'Cause I'm a little girl and he's a big boy."

"There's no getting around *such* logic," observed the father. "But, returning to Dorsey and Mr. Westervelt, I repeat there's something in the wind. I wonder that we have not learned what it is."

"We shall know before long," was the truthful prophecy of the wife.

CHAPTER XXIII.

THE BREAKING OF A STEEL PEN.

It was yet quite early in the evening, Maggie having gone upstairs to her room, and husband and wife were discussing the subject that had filled their minds for weeks. The father had just remarked that Dorsey would come on the later train, when there was a knock at the door, which he opened.

In the light from the lamp on the table he recognized the gentleman who had ridden up to him in his light carriage the preceding spring, and with whom he had exchanged some sharp words, those of the stranger being accompanied by threats which, it has been shown, were made good.

He was in a different mood to-night. Doffing his hat, he stepped across the threshold and extended his hand.

"Good-evening, Mr. Dawson—Northend is

my name. You and I had a rather brisk interview last spring," he added with an oily laugh.

"Walk in, Mr. Northend; I am glad to see you. This is my wife, Mrs. Dawson."

The gentleman bowed courteously, and, thanking his host for the proffered chair, seated himself, flinging his cape back from his shoulders and placing his hat on the floor beside him. The conversation was unimportant for a few minutes, during which nothing was said as to the object of the visit.

There could be no doubt that the call "meant business," and husband and wife were on the alert. Finally Mr. Northend said:

"Of course, my friends, you understand that some special errand led me to drive up from the village."

"Will you not allow me to put your horse away?"

"Thank you, it is not necessary. I must drive back in time to take the down train; my business will not detain me long. I have called to consult with you about the manufacture of bricks, so far as it concerns you and ourselves, for I speak for the seven firms who

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are with me in an association. Mr. Dawson, I wish to invite you to join us."

"Thank you for the invitation, but please be more specific?"

"With pleasure. Now, understand that we are all reputable firms, who seek to make only a fair profit in our business. When we learned that you were putting a large number of bricks on the market at a less price than we could afford, we saw that in self-defense we must adopt drastic measures. As you are aware, we did."

"I hardly think I need to be reminded of that," replied Mr. Dawson pleasantly, for he was determined to keep his temper.

"You understand that though some of us regretted it, no other course was left to us. We combined to put down the rates below your ability to compete. Had you cut the rates again, we should have gone still lower. You will allow me to say, Mr. Dawson, that the mistake you made was in not meeting and talking it over with us before deciding upon such a radical step."

"I must admit that I was shortsighted, though the probable consequences never pre-

sented themselves to me or any member of my family."

"I am glad to hear you say that. We could keep up the fight for several years and cut under you every time, but what's the use? It would entail loss upon us, and ruin you."

"I am free to admit that."

"My proposition, therefore, is that you join our association, as I stated a few minutes ago."

"What will be the effect of such action on my part?"

"There will be nine firms in the organization; the majority will establish the rates, which will always be reasonable, that are to be charged for the different kinds of bricks; the only rivalry among us will be as to who can make the best article, for the one who does that, and charges no more than the rest, will sell the most. But, as you perceive, instead of pulling at odds, we shall pull together. There will be no friction; everything will go along pleasantly, and each one have a chance to make an honest living."

"Your proposition strikes me favorably;

But allow me to ask when, if I join, will the agreement go into effect?"

"From the day you attach your signature to it. Thus, if you signed to-night, as I am sure you will do, I shall notify our board, and the prices will be re-established at the old rates, which of course includes all the stock you have on hand, as well as all that you may make hereafter."

"I see two objections to your proposal. In the first place, the cheap rates you and your associates have established have supplied pretty fully all demands that are likely to occur for a long time."

"May I ask whose fault that is?"

"Possibly my own, but it is a condition rather than a theory that confronts me. Waiving the point, however, I have given my promise that the rates I advertised would not be raised during the present season. Nothing could induce me to violate a pledge of that nature."

Mr. Northend was thoughtful for a moment.

"I think I see a way of overcoming that difficulty. You will be free to follow your

own judgment after October or January first, coming, as you prefer."

"I shall feel better to make it the beginning of the new year."

"Very well; your membership may date from January 1, after which the prices of bricks will be fixed by our board and will be equally binding upon you and us."

"It may be——"

"Mr. Dawson will agree to that."

Strange as it may seem, it was Mrs. Dawson who uttered these words. She had been a careful listener to the conversation, and comprehended all its bearings. With her quick intuition she saw that the proposition was the only one that offered them hope. Though the relief was postponed to a distant day, nevertheless it *was* relief. It was a rare thing for her thus to interpose, but she did so with quiet firmness.

Mr. Northend bowed smilingly to her, and said:

"I know Mr. Dawson intended to do so, but it is right that he should ask all the questions that occur to him. I am here to answer them."

"Have you the paper with you?"

The visitor drew a document from his pocket and handed it to Mr. Dawson, who, spreading it on the table, carefully read it.

It was precisely what Mr. Northend had stated. In subscribing to it, and paying a small fee, a member bound himself to abide by the decisions of the board, which consisted of five members, and pledged himself not to sell directly or indirectly any of the products of his plant for less than the rates established by said board.

"Suppose, Mr. Northend, that instead of signing this now I give you a written pledge to do so on the first of next January?"

"That difficulty can be easily remedied. After signing your name write after it the words: 'To take effect January 1, 18—.'"

"Between the present and that time the prices of my products are within my own control?"

"Wholly so. You are at perfect liberty to sell them for one dollar or ten dollars a thousand—whatever you can get," he added significantly.

Observing the natural hesitation of Mr. Dawson, the caller said :

"I suggest that you read the document aloud in order that Mrs. Dawson may know the wording."

Her husband did so, and then, looking at her, asked :

"What do you say?"

"Sign."

"You never advised me wrongly, wife, and so here goes."

The ink and pen were placed on the table, and he subscribed his name in his bold hand at the bottom, adding the clause suggested by the other.

"No witnesses are necessary," remarked Mr. Northend. "I am sure you will never regret what you have done. Thanks, all the same."

He replaced the document in his pocket, cleared his throat, and said :

"That being completed, one thing more remains. I understand you have about two million bricks on hand."

"That is substantially the number."

"With no prospect of selling them before next year?"

"I do not see how it is possible to do so."

"Why not sell the two million to us?"

"Whom do you mean by 'us'?"

"Myself and the firms associated with me."

"Your proposition is rather sudden. I assume it is made in good faith?"

"It is."

"What price are you willing to pay?"

Mr. Northend uncrossed his legs and crossed them again. He leaned back in his chair, and then looked steadily at Mr. Dawson.

"Of course that is the main point. Since you have established your own rates, you cannot go above them. Since also we have lost so much money, because of your course, you cannot expect us to give anything like the prices we have advertised. Pardon me for assuming that this little mistake of yours has cramped you financially. You are in need of ready money; you can procure none through the sale of your bricks until next year. Would it not be wise, therefore, to accept two dollars a thousand for the whole lot, which will give you four thousand dollars, square up all indebtedness, and then start in as one of us next spring?"

Mr. Dawson was thinking hard. The proposition meant a great sacrifice, but unquestionably it would accomplish all his visitor said it would. Mr. Northend added:

"The price, I am aware, is below the cost. We cannot sell the bricks before next year, and we shall lose the interest on our money. We shall be compelled to hold them until we can realize on them."

"Since, however, they will come into the pool and compete with my own output, you will triple your money."

"If you prefer, you can hold them for a year and obtain the same prices for them."

Mr. Dawson saw how much better it would be to do that, but the rub was, he was so desperately in need of funds he could not afford to wait. He had thought of borrowing money from some capitalist, but the security was not of a kind that was popular.

"I make the proposition by instruction of my associates," added his visitor. "All you have to do is to sign a bill of sale, and a certified check will be handed to you."

"How long can you give me to think this over?"

"Why do you need *any* time? The proposition is so clear and plain that you ought to be able to say yes or no at once. I am willing, however, to wait until to-morrow. Ah, no! I forgot!" exclaimed Mr. Northend, with some excitement, as he fumbled in his pockets. "My instructions were that you must make your decision without delay. If I leave your house this evening without an agreement to sell all the bricks you have on hand at the rate of two dollars a thousand, the deal is off so far as we are concerned."

"Your haste does not impress me favorably."

"I am only following my instructions. Pardon me for repeating that the proposition in all its bearings is so simple that I can see no reason for a moment's hesitation. Were our situations reversed, I should jump at the chance. If you are able to hold on for a year or so to your bricks I advise you to do so."

While speaking, Mr. Northend drew the memorandum from his pocket, managing to display at the same time, as if by accident, the attractive check with the figures and

written words, calling for the sum of four thousand dollars. The sight of the valuable slip of paper drove all hesitation from the mind of Mr. Dawson. He glanced over the memorandum, which called for the sale of two million of bricks at the rate of two dollars per thousand. It was evident that Mr. Northend had made himself familiar with the situation.

Mr. Dawson again took up his pen and dipped it in the ink. Spreading out the paper on the table, he made a preliminary flourish and then wrote in a clear hand his given name "Jacob." He always insisted that the capital "D" is one of the hardest in the alphabet to write gracefully, and again he indulged in a number of introductory circlings of the pen before touching the paper. Then he made the down stroke, and had started on the up curve, when the point of the pen caught, and one of the delicate halves snapped off and flew across the floor.

"You have reason to be proud of your penmanship," remarked Mr. Northend, who was watching the proceedings.

"I shall have to get another pen to finish

my signature," replied Mr. Dawson, starting to rise from his chair to go to the closet where a box of pens was kept.

Before he could do so, his wife, who was sitting beyond the visitor, whose back was toward her, coughed slightly. Her husband looked in the direction, and saw that the door was open and Dorsey was standing on the threshold, looking earnestly at him. The position of Mr. Northend was such that he could not see the boy nor his mother without turning his head and looking behind him.

The boy had his forefinger on his lips, and as his eyes met those of his father, he gently shook his head. The parent, acting as if he saw nothing unusual, kept his gaze for another moment on his son. The latter, without making a sound, moved his lips so that his words were as intelligible as if spoken:

"*Don't sign!*"

Then he closed the door behind him, and, hat in hand, said:

"Good-evening, father."

"Why, my son, I am glad you got home. This is Mr. Northend, Dorsey."

"Glad to meet you," said the gentleman,

rising, turning about, and extending his hand. "I was not aware that Mr. Dawson had so large a son."

The arrival turned the flow of conversation, until the visitor looked at his watch.

"You will pardon me, but I must be returning to Titusville, if I am to catch my train. If you will be good enough to complete your signature, Mr. Dawson, I will leave the check with you and bid you all good-evening."

"Mr. Northend, I am obliged to you for your proposition, but I prefer to take two or three days to think over the matter, which is an important one to me."

The caller looked surprised.

"I should like to oblige you, but I must remind you of the terms. The deal will have to be made before I leave the house, or it is off."

"I understand that."

"And still decline to sign?"

Mr. Dawson inclined his head. The negotiation was at so critical a point that Mr. Northend, in the face of the value of the minutes to him, hesitated.

"You are making a great mistake."

"Possibly I am, but the consequences will fall upon me."

"You know the result of one serious error on your part," added Mr. Northend significantly.

"I do not need to be reminded of it."

"Very well. I cannot tarry longer."

He extended his hand, took back the paper, and, bidding the family good-evening, passed out the door and hurried down the walk to where his carriage was waiting. By driving rapidly he reached the station in time to board his train.

"Father, let me look at that pen," said Dorsey with an odd smile, as he took the holder from his parent's hand. He turned it over several times, holding it up in the lamplight, and then said:

"We must keep that little friend. For, by its breaking when it did, it earned you six thousand dollars."

CHAPTER XXIV.

CONCLUSION.

SOME two or three weeks before the incident just narrated Dorsey Dawson said to his teacher:

"I believe all this opposition to us is local."

"Please explain."

"You know that the bricks made by us each season are really few in number, compared with what we expect to do with the new machines. There has been no trouble in selling them within a distance of fifty miles. We have never tried to sell them beyond that limit. Our rivals know this, and their opposition doesn't go beyond fifty miles."

"That sounds reasonable."

"If I am right, all we have to do is to jump the fifty-mile fence into the fields

beyond," said the youth, making a sweep with his hand that embraced the four points of the compass.

"But when you attempt that, your rivals will confront you again and shut you from the market."

"Hold on, now. Father will join the combination for next year. Then he'll have the right to raise the price of our bricks. That looks as if he'll have to carry along our present stock and wait until next season before he can get any money on it. Now, my plan is to find out whether our rivals ask the regular prices for their bricks at points several hundred miles away."

"It seems to me it is quite likely such is the fact. Despite this move against you by the other manufacturers, they are not anxious to lose money. Therefore, in competition with outside parties, they have probably kept up regular rates. But, as I said, while this may not be the case, they will be sure to cut prices the moment they find you have entered the new and broader field."

"Now, hold on again. Both of us have acquaintances in Chicago, Kansas City,

Cleveland, Cincinnati, and other places in the West. We'll write to them and get them to address some of these firms, asking rates on bricks in quantities of one hundred thousand and upward."

"The reply of one firm will be enough, because of their agreement among themselves."

"But, to make certain, we'll get several. Then, if they are favorable, I'll write to some strong firm whose address can be got, and offer it the two million bricks at a price much lower than that asked by our rivals, requesting at the same time that the matter be kept secret until it is ended."

"They will be sure to do that, since they will set it down to an impending break in the combination."

It was at this point that Mr. Westervelt made his complimentary remark concerning his young friend's ingenuity.

The two bestirred themselves. They received, through the aid of their friends, replies from five of the eight members of the combination—that being all whom they addressed. These answers were identical, referring the inquirers to the printed rates

inclosed, which were what they had been for several years.

So much of the ground being cleared, Dorsey wrote to Mr. Pittston of Chicago, offering to sell him two million bricks, "delievered on the cars at Titusville," for five dollars per thousand. Since this rate was only slightly more than two-thirds of that asked by the other firms, it will be seen that it offered a good investment to parties with capital at command.

Mr. Pittston saw his opportunity, and, instead of waiting to complete the transaction by correspondence, met Dorsey in Trenton and agreed that, if the bricks were found as represented, he would purchase the entire lot, paying for them as fast as they reached Chicago. Before concluding the bargain, it was necessary for him to inspect the bricks in the kilns. Dorsey invited him to go home with him that evening; but Mr. Pittston said he had a few matters to look after, and would be in Titusville on the morning train.

I have shown how the youth arrived in time to suspect the nature of the business

that had taken Mr. Northend thither, and how the slight delay caused by the breaking of the steel pen prevented the father from signing an agreement to sell his entire stock at two dollars a thousand.

Before the arrival of Mr. Pittston on the morrow, Dorsey explained that he had secured the consent of Mr. Briggs for his father to sell his bricks at whatever price he could get. But for this precaution on the part of the son, his conscientious parent might have felt a misgiving as to the strict honesty of his course.

When Mr. Pittston made a thorough examination of the bricks, as revealed by opening the kilns at a number of different points, he frankly admitted that they were of better quality than he supposed. He drew up and signed an agreement to pay Mr. Dawson five dollars for every thousand, as soon as they arrived in Chicago.

The expense of this delivery took something from the profits, but it was quite moderate when compared with the total, which was between nine and ten thousand dollars. Mr. Dawson engaged a dozen of his

neighbors to haul the bricks to the railway station, which in its way was quite a help to the neighborhood, for the teams formed a continuous procession until September was well advanced, by which time not one hundred bricks were left in the Titusville yard.

Of course the shipment had hardly begun when the other firms learned what was going on. Not only were they powerless to interfere, but credit must be given them for showing no desire to do so. Mr. Northend stopped at Mr. Dawson's house while the heavily loaded teams were passing in the road, and said with a laugh:

"A really clever move on your part, Dawson. You may be sure no suspicion of such a thing entered our minds, or we should have been ahead of you."

"There was nothing wrong in what I did, Mr. Northend?"

"Not the slightest, but one thing puzzles me. On the night I called at your house you began writing your name at the bottom of the bill of sale, and had it half finished when your plaguey pen broke. Instead of getting a new one and completing your

signature, your coolly declined to sign at all. It has never been clear to me what induced you to change your mind."

It was Mr. Dawson's turn to laugh.

"Had you been provided with eyes in the back of your head, you would have seen my boy, just arrived from Trenton, where he had completed the agreement, so far as he could, with Mr. Pittston. I was about to greet Dorsey, when he put his fingers on his lips, moving the latter so that I read his words '*Don't sign!*' I knew he had good reason for his warning, and I heeded it."

"Well, well, but that was clever, very clever! The breaking of that steel pen is another proof of the fact that large things very often hang on little ones. I assure you, Dawson, you have the heartiest good wishes of myself and all my associates."

"I don't doubt it, and I thank you and them."

I should be glad to continue my story of "Dorsey, the Young Inventor," but am prevented by the very good reason that it has already been brought down nearly to date.

The young man entered college during the year following the incidents last narrated, the financial situation of his father requiring no sacrifice on his part when his son took this step. Having completed his special course, Dorsey returned to his home that he might give the aid made necessary by the growing years of his parent. At the same time, he has continued his studies in his chosen field, whose limitations are so boundless that there is reason to hope that in due time, should his life be spared, he will add to some of the great discoveries and beneficent inventions which promise to mark the coming century as far beyond and above any of those that have gone before.

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